Panasonic®

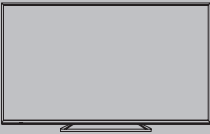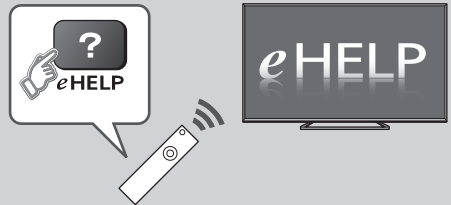# Operating Instructions
LED TV

VIErA

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

?
e HELP

e HELP

● How to use [eHELP] ➡ **(p. 16)**

Thank you for purchasing this Panasonic product.

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

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

CQD

English

Contents

Be Sure to Read

Quick Start Guide

Using your VIERA

Others

● For the information of the trademarks, refer to [eHELP] (Support > Licence).

Important Notice

Notice for Digital terrestrial broadcasting functions

- Function related to Digital broadcasting will work in the areas where the digital terrestrial broadcasting services are received. Consult your local Panasonic Dealer with coverage areas.
- Not all the features are available depending on the country, area, broadcaster and service provider.
- This TV has the capability for Digital broadcasting specifications. But future Digital broadcasting services cannot be 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.

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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.

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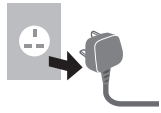
Safety Precautions

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

■ Mains plug and lead

Warning

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 socket outlet.
- Ensure that the mains plug is easily accessible.
- 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 socket outlet.
  - Do not twist the lead, bend it excessively or stretch it.
  - Do not use a damaged mains plug or socket outlet.
  - Ensure the TV does not crush the mains lead.
- Do not use any mains lead other than that provided with this TV.

■ Take care

Warning

- Do not remove covers and never modify the TV yourself as live parts are accessible 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.

- 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 strong force or impact to the display panel.
- Do not place the TV on sloped or unstable surfaces, and ensure that the TV does not hang over the edge of the base.
- 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

■ Dangerous part / Small object

Warning

- This product contains possibly dangerous parts such as plastic bags, that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.
- Do not allow children to handle any small objects such as SD Card and R03 batteries. 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 by the specified procedure.

■ Radio wave

● 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 cause accidents due to the 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 cause accidents due to the malfunction.

● Keep the distance at least 22 cm from the TV and Touch Pad Controller when 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

● 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, keep the TV away from the devices such as other wireless LAN devices, microwaves, mobile phones and the devices that use 2.4 GHz and 5 GHz signals when using the built-in wireless LAN.

● When noises occur due to the static electricity, etc., the TV might stop operating for the protection of the devices. In this case, turn the TV off with Mains power On / Off switch, then turn it on again.

● Additional information for the wireless LAN and access point may be on the following website.

   (English only)

   http://panasonic.net/viera/support

■ Bluetooth® wireless technology

● 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

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

Minimum distance:

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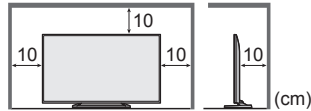
● Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, tablecloths and curtains.

● 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

Before moving the TV, disconnect all cables.

● Move the TV with at least two people.

■ When not in use for a long time

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

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

■ Use conditions

● This appliance is intended for use in tropical climates.

■ Battery for the Remote Control / Touch Pad Controller

● 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.

■ 3D Eyewear Use

Caution

- Use the 3D Eyewear only for the intended purpose and nothing else.
- Do not move around while wearing the 3D Eyewear to avoid falling or accidental injury.
- Do not drop, bend, exert pressure on, or step on the 3D Eyewear.
- Be careful of the tips of the frame when putting on the 3D Eyewear.
- Be careful not to trap your fingers in the hinge section of the 3D Eyewear.
- Do not use the 3D Eyewear if it is physically damaged.
- If you suffer from any eyesight problems (short / far-sighted, astigmatism, eyesight differences in left and right), ensure that you correct your vision before using the 3D Eyewear. The supplied 3D Eyewear can be worn over vision correction glasses.
- Stop using the 3D Eyewear immediately if you experience any redness, pain or skin irritation around the nose or temples. In rare cases, the materials used in the 3D Eyewear may cause an allergic reaction.

■ Viewing 3D Images

Caution

- Pay special attention when children are viewing 3D images. 3D images should not be viewed by children younger than about 6 years old, as a guideline.
  All children must be fully supervised by parents or guardians who must ensure their safety and health while they are viewing 3D images.
- Stop viewing 3D images immediately if you feel tired, feel unwell, experience any other uncomfortable sensation or clearly see double images. Take an appropriate break before continuing to view. When you set the 3D effect by using [3D Adjustment], take into account that the vision of 3D images varies among different individuals.
- Do not view 3D images if you have a history of oversensitivity to light, heart problems or any other medical conditions.
- When viewing 3D images, your sense of distance may be tricked or go wrong. Be careful not to hit the TV screen or other people unintentionally. Ensure there are no breakable objects around you to avoid any accidental damage or injury.
- Do not view 3D images from a distance shorter than recommended. The recommended viewing distance is at least 3 times of the image height.

    42-inch model : 1.6 m or more
    50-inch model : 1.9 m or more
    55-inch model : 2.1 m or more
    60-inch model : 2.3 m or more

  When black bands at the top and bottom of the screen are displayed, such as movies, view the screen from a distance at least 3 times the height of the actual image. (That makes the distance shorter than the recommended values above.)

Accessories

Remote Control

➡ **(p. 11)**

- N2QAYB000933

Touch Pad Controller

➡ **(p. 12)**

- N2QBYA000004

Pedestal

➡ **(p. 7)**

42-inch model 50-inch model
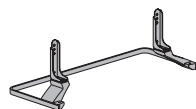
55-inch model 60-inch model
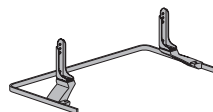
Mains lead

➡ **(p. 8)**
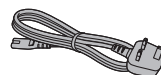
Batteries

- R6 (2)
  (For Remote Control)
➡ **(p. 12)**
- R03 (2)
  (For Touch Pad Controller)
➡ **(p. 13)**

3D Eyewear (2)

➡ **(p. 16)**

Operating Instructions

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

- For the information of optional accessories, refer to [eHELP] (Support > Optional accessories).

Assembling / Removing the pedestal

Ⓐ **Assembly screw (4)**

M5 × 15

Ⓑ **Assembly screw (4)**

M4 × 12

Ⓒ **Bracket (2)**

Ⓓ **Base**

42-inch model   50-inch model

55-inch model   60-inch model

1

2

3
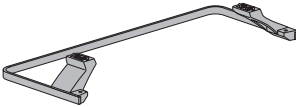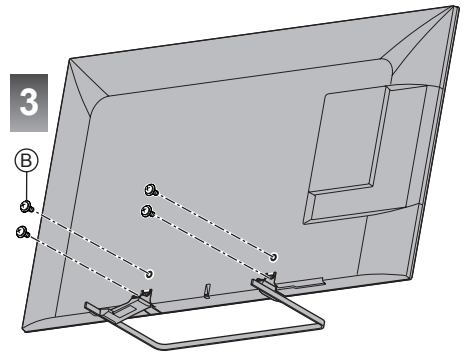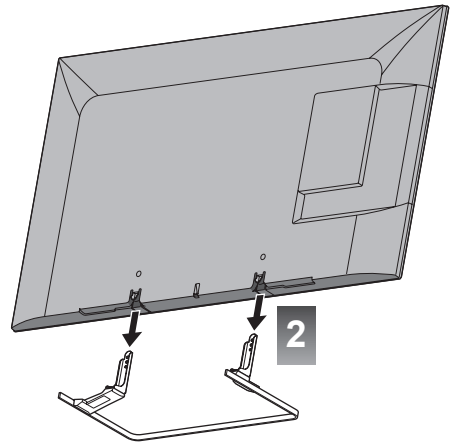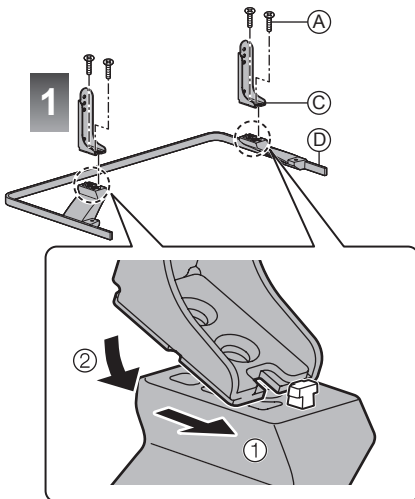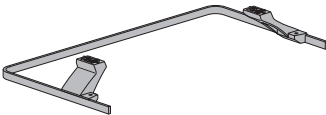
Removing the pedestal from the TV

Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

1 Remove the assembly screws Ⓑ from the TV.

2 Pull out the pedestal from the TV.

3 Remove the assembly screws Ⓐ from the bracket.

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 when connecting.
- 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.

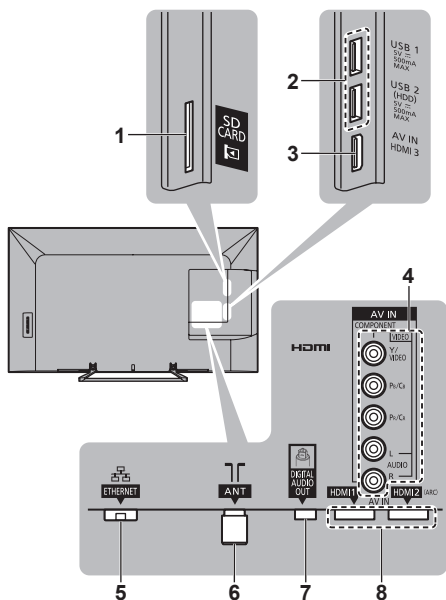## Terminals

1 **SD Card slot**
2 **USB 1 - 2 port**
3 **HDMI3**
4 **AV (COMPONENT / VIDEO) ▶ (p. 9)**
5 **ETHERNET ▶ (p. 9)**
6 **Aerial terminal ▶ (p. 8)**
7 **DIGITAL AUDIO OUT**
8 **HDMI1 - 2 ▶ (p. 9, 10)**

Basic connections

■ Mains lead

AC 220-240 V
50 / 60 Hz

Mains lead (supplied)
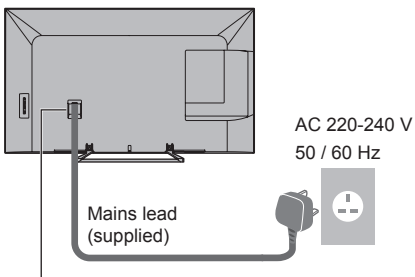
Insert the mains plug firmly into place.
- When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

■ Aerial

TV
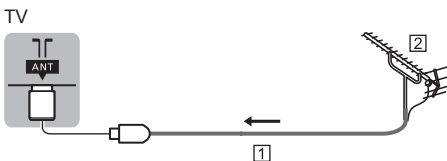
① RF cable

② Aerial

- For Digital TV, Analogue TV
- Keep RF (aerial) cable away from the mains lead to avoid and minimise mains interference pickup.
- Do not place the RF cable under the TV.
- An aerial, correct cable (75 Ω coaxial) and correct terminating plug are required to obtain optimum quality picture and sound.
- If a communal aerial system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
- Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the customer.

AV devices

■ DVD Recorder / VCR

TV
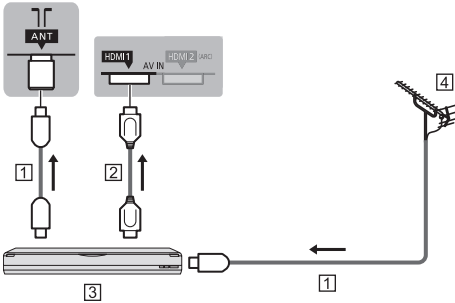
1 RF cable
2 HDMI cable
3 DVD Recorder / VCR
4 Aerial

■ Set top box

TV
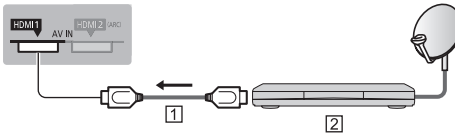
1 HDMI cable
2 Set top box

Network

To use internet service, you need a broadband network environment.

● 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. 14)**

■ Wired connection

TV

Internet environment
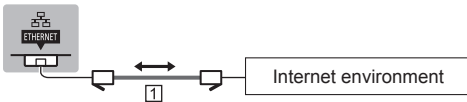
1 LAN cable (Shielded)

● Use the Shielded Twist Pair (STP) LAN cable.

■ Wireless connection

Internet environment

1 Built-in wireless LAN
2 Access point

Other connections

■ DVD Player

(COMPONENT equipment)

TV

(Viewing)

(Listening)
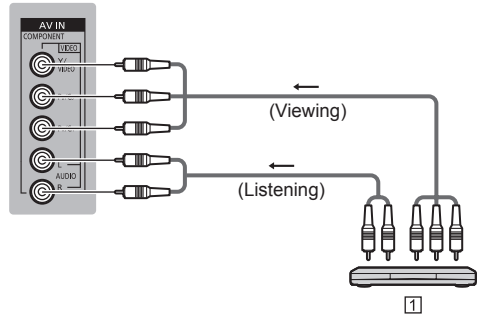
1 DVD Player

■ Camcorder / Game equipment

(VIDEO equipment)

TV

(Viewing)

(Listening)
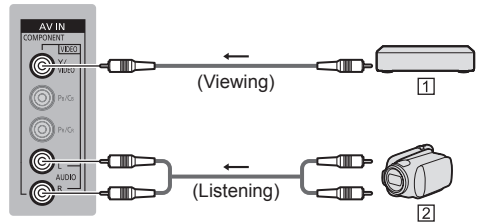
1 Game equipment
2 Camcorder

■ Blu-ray Disc Player

(3D-compatible equipment)
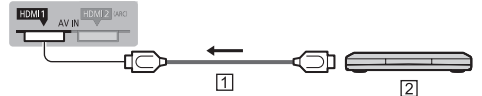
1 HDMI cable
2 Blu-ray Disc Player

English **9**

■ **Amplifier** (to listen with speakers)

● Use HDMI2 for connecting an amplifier. This connection is applicable when using an amplifier that has ARC (Audio Return Channel) function.

As for an amplifier without ARC function, use DIGITAL AUDIO OUT.

● To enjoy multi-channel sound from external equipment (e.g. Dolby Digital 5.1ch), connect the equipment to the amplifier. For the connections, read the manuals of the equipment and amplifier.

TV
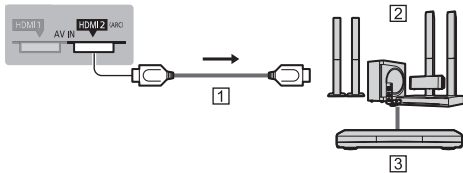
1 HDMI cable

2 Amplifier with speaker system

3 External equipment (DVD Player, etc.)

■ **Communication Camera**

● Use USB 1 for connecting the Communication Camera.

● For more information, refer to [eHELP] (Support > Optional accessories > Communication Camera).

■ **USB HDD (for recording)**

● Use USB 2 for connecting the USB HDD.

● For more information, refer to [eHELP] (Recording).

■ **VIERA Link**

● Use HDMI1 - 3 for VIERA Link connection.

● For more information, refer to [eHELP] (Functions > VIERA Link "HDAVI Control™").

Identifying Controls

Remote Control
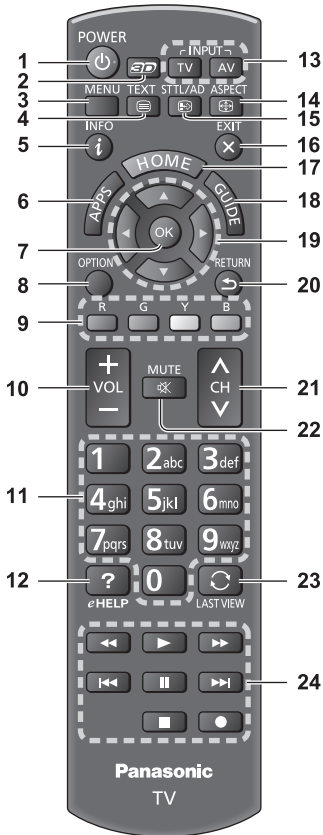
1 Standby On / Off switch

2 3D button
- Switches the view between 2D and 3D.

3 [Main Menu]
- Press to access Picture, Sound, Network, Timer, Setup and Help Menus.

4 Teletext button
- This button is not used for this model.

5 Information
- Displays channel and programme information.

6 APPS
- Displays [APPS List] (applications list).

7 OK
- Confirms selections and choices.
- Press after selecting channel positions to quickly change channel.
- Displays channel list.

8 [Option Menu]
- Easy optional setting for viewing, sound, etc.

9 Coloured buttons
  (red-green-yellow-blue)
- Used for the selection, navigation and operation of various functions.

10 Volume Up / Down

11 Numeric buttons
- Changes channel.
- Sets characters.
- When in Standby mode, switches TV on.

12 [eHELP]
- Displays [eHELP] (Built-in Operating Instructions).

13 Input mode selection
- TV - switches to Digital TV / Analogue TV.
- AV - switches to AV input mode from Input Selection list.

14 Aspect
- Changes aspect ratio.

15 Subtitles
- Displays subtitles.

16 Exit
- Returns to [Home Screen].

17 HOME
- Displays [Home Screen].

18 TV Guide

19 Cursor buttons
- Makes selections and adjustments.

20 Return
- Returns to the previous menu / page.

21 Channel Up / Down

22 Sound Mute On / Off

23 Last view
- Switches to previously viewed channel or input mode.

24 Operations for contents, connected equipment, etc.

■ Installing / Removing batteries

Pull open

Hook

Close
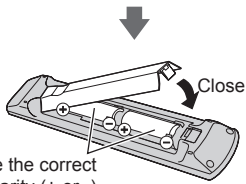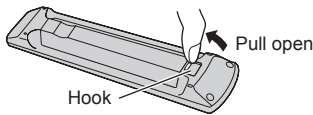
Note the correct polarity (+ or -)

Touch Pad Controller

Touch Pad Controller is designed for the convenient operations, especially, on Home Screen or internet contents. You can operate the TV intuitively with this controller.

● Touch Pad Controller can be used by registering to this TV with Bluetooth wireless technology.

   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. (You can operate the switch without registration.)

● It is recommended to speak within about 15 cm from microphone of Touch Pad Controller when using Voice Control function.

● For more information, refer to [eHELP] (Functions > Touch Pad Controller).
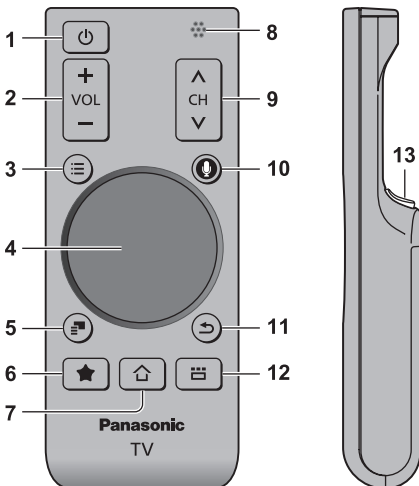
1. **Standby On / Off switch**
2. **Volume Up / Down**
3. **[Main Menu]**
4. **Touch pad (p. 12)**
5. **[Option Menu]**
6. **My button**
   ● Press to register the content as your favourite.
   ● For more information of my button, refer to [eHELP] (Functions > Touch Pad Controller > My button).
7. **HOME**
   ● Displays [Home Screen].
8. **Microphone**
9. **Channel Up / Down**
10. **Voice Control button**
    ● Press to use Voice Control function.
11. **Return**
    ● Returns to [Home Screen].
12. **APPS**
    ● Displays [APPS List] (application list).
13. **OK**
    ● Confirms selections and choices.

■ Touch Pad

● Tap the centre of the pad for "OK".
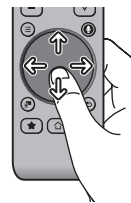
● Slide your finger to move the cursor (on internet contents or [Cursor Settings] in [VIERA Touch Pad Controller] (Setup Menu)), select the item, adjust levels, etc.

● Trace the fringe to scroll.

Panasonic
TV

■ Installing / Removing batteries

Slide open

Close

Note the correct polarity (+ or -)
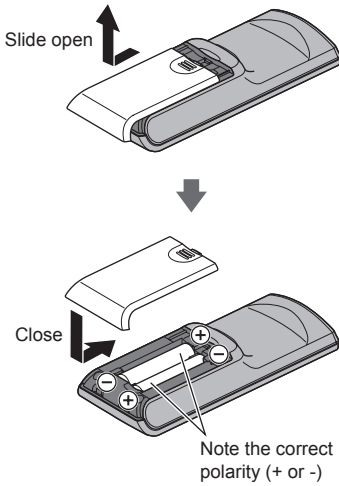
> **Note**

- 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 1, 2, 3 buttons, the control panel guide appears on the right side of the screen for 3 seconds to highlight the pressed button.
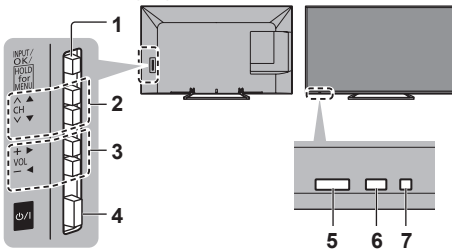
Rear side of the TV

1 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)

2 Channel Up / Down

   Cursor Up / Down (when in the menu system)

3 Volume Up / Down

   Cursor Left / Right (when in the menu system)

4 Mains power On / Off switch
   - Use to switch the mains power.

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

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

7 Power LED

   Red: Standby

   Green: On

   Orange: Standby with Recording / Standby with Timer Programming On

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

First time Auto Tuning

Automatically sets up the TV and searches for available TV channels when the TV is turned on for the first time.

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

● Please complete connections (p. 8 - 10) and settings (if necessary) of the connected equipment before starting Auto Tuning. For details of settings for the connected equipment, read the manual of the equipment.

1 Plug the TV into mains socket and turn power on

POWER ● 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
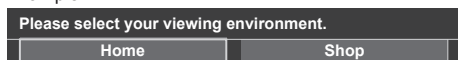
■ How to use remote control

Move the cursor

Access the item / store the setting

RETURN

Return to the previous item (if available)

Select the language

Select [Home]

Select [Home] viewing environment to use in your home environment.

● [Shop] is for shop display.

● To change viewing environment later on, you will need to initialise all settings by accessing Shipping Condition.

Set up the network connection

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

☑ : tune (search for the available channels)

☐ : skip tuning

■ When you select the analogue TV signal, select your area.

● When selecting [CATV/Other], press the OK button, and then select the Channel Plan from Indian CATV, South Africa, American System, American CATV or Japan CATV.

3 Select the type of [Home Screen]

The demonstration to explain how to use [my Home Screen] is displayed. Confirm the demonstration by following the on-screen instructions, and then select the desired [Home Screen].

Example: [Home Screen Selection]

Example: [TV Home Screen]

> **Auto Tuning is now complete and your TV is ready for viewing.**

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

(Note)

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

● The TV will automatically go 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 Tuning] 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)**

Operations

Turn power on

⏻/I ▮ (TV)

or
POWER

⏻ (Remote Control)

● Mains power On / Off switch should be on. (p. 13)

The last viewed [Home Screen] is displayed.

Example: [TV Home Screen]

HOME

Example: Selected content screen

● To return to [Home Screen] at any time

HOME

● You can set up or make [Home Screen] to display desired information, to access specific features easily, to select the default [Home Screen], etc. For details, follow the on-screen instructions or refer to [eHELP] (my Home Screen > my Home Screen).

Watching TV

1 Select the TV viewer from [Home Screen]

①select
②access

2 Select Digital TV or Analogue TV

TV

3 Select a channel

∧ CH — up
∨ — down

or

1 2 3
4 5 6
7 8 9
0
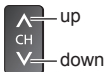
● To select a channel position with 2 or more-digit, e.g. 399

3def 9wxyz 9wxyz

To access each feature

Access [APPS List] and select a feature

APPS

Example: [APPS List]

● APPS is the applications (features) of the TV.

● For operations of each feature and the setup of [APPS List], follow the on-screen instructions or refer to [eHELP] (my Home Screen > APPS List).

How to Use eHELP

[eHELP] is the detailed operating instructions built into the TV, and helps you to get more understanding of the operations for each feature.

1 Display [eHELP]

? eHELP

or

MENU ➡ **[Help]** ➡ **[eHELP]**

● If this is not the first time to view [eHELP] from when the TV is turned on, the confirmation screen is displayed to select whether [First Page] or [Last Page].

2 Select the category and item

Category field

Item field

① select category
② access

③ select item
④ access

Sub item field

Description

⑤ select sub item
⑥ access

● To return to the previous field

● To scroll the description (if more than 1 page)
While the description is highlighted

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

R
(red)

Viewing 3D images

You can enjoy viewing 3D images with contents or programmes corresponding to the 3D effect by wearing the 3D Eyewear (supplied).

● The 3D Eyewear must be worn to view 3D images.
● This TV supports [Frame Sequential]*, [Side by Side] and [Top and Bottom] 3D formats.
● For more information, refer to [eHELP] (Watching > 3D).

*: The 3D format that the images for the left and right eyes are recorded with the high definition quality and alternately played back.

To view the 3D images

■ Playing back 3D-compatible Blu-ray disc (Frame Sequential format)
● Connect the 3D-compatible player via a fully wired HDMI compliant cable. (If you use the non 3D-compatible player, the images will be displayed in 2D mode.)
● If the input mode is not switched automatically, select the input mode connected to the player using the AV button.

■ 3D-supported broadcast
● Please consult the suppliers of contents or programmes for availability of this service.

■ 3D photos and 3D videos taken by 3D-compatible Panasonic products
● Available in Media Player and Network services.

■ 2D images converted to 3D
● Press the 3D button and set to [2D→3D] mode in [3D Mode Selection].

1 Put the 3D Eyewear on

2 View the 3D images

Safety precautions will be displayed when you first watch the 3D image. Select [Yes] or [No] to continue to view 3D images.

(Note)
● Do not exert pressure on or scratch the lens of the 3D Eyewear.
● 3D content will not be correctly visible if the 3D Eyewear is worn upside down or back-to-front.
● When viewing 3D images, make sure your eyes are at an approximately horizontal level and keep a position where you do not see double images.

FAQs

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

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

The TV does not switch on

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

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. 12)**

● 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 not to shine on the TV's remote control signal receiver.

No image can be displayed

● Check the TV is turned on.

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

● Check the correct input mode is selected.

● Check the setting of [AV] ([COMPONENT] / [VIDEO]) in [Input Selection] to match the output of the external equipment.

● Is [Contrast], [Brightness] or [Colour] in the Picture Menu set to the minimum?

● Check all required cables and connections are firmly in place.

Unusual image is displayed

● 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)**

Parts of the TV become hot

● Even if the temperature of parts of the front, top and rear panels has risen, these temperature rises do not cause any problems in terms of performance or quality.

The display panel moves slightly and clattered sound is heard when it is pushed with a finger

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

Maintenance

First, remove the mains plug from the socket outlet.

Display panel, Cabinet, Pedestal

Regular care:

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

For stubborn dirt:

(1) First clean the dust on the surface.

(2) Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).

(3) Wring the cloth firmly. (Please note liquids do not enter the TV inside. May lead to product failure.)

(4) 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.

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.

AS670 series

  42-inch model : TH-42AS670H
  50-inch model : TH-50AS670H
  55-inch model : TH-55AS670H

AS700 series

  60-inch model : TH-60AS700H

Dimensions (W × H × D)

AS670 series

42-inch model
  962 mm × 608 mm × 202 mm (With Pedestal)
  962 mm × 562 mm × 54 mm (TV only)

50-inch model
  1 130 mm × 703 mm × 214 mm (With Pedestal)
  1 130 mm × 658 mm × 54 mm (TV only)

55-inch model
  1 244 mm × 767 mm × 292 mm (With Pedestal)
  1 244 mm × 722 mm × 54 mm (TV only)

AS700 series

60-inch model
  1 351 mm × 823 mm × 292 mm (With Pedestal)
  1 351 mm × 778 mm × 62 mm (TV only)

Mass

AS670 series

42-inch model
  11.0 kg Net (With Pedestal)
  10.0 kg Net (TV only)
50-inch model
  15.5 kg Net (With Pedestal)
  14.5 kg Net (TV only)
55-inch model
  19.5 kg Net (With Pedestal)
  18.5 kg Net (TV only)

AS700 series

60-inch model
  21.5 kg Net (With Pedestal)
  20.5 kg Net (TV only)

Power source

AC 220-240 V, 50 / 60 Hz

Rated power consumption

42-inch model
  94 W
50-inch model
  115 W
55-inch model
  131 W
60-inch model
  146 W

Standby power consumption

0.20 W

Visible screen size (diagonal)

42-inch model
  106 cm
50-inch model
  126 cm
55-inch model
  139 cm
60-inch model
  151 cm

Display resolution

1 920 (W) × 1 080 (H)

Panel

LED backlight Liquid Crystal Display

Speaker output

20 W (10 W + 10 W)

Connection terminals

AV IN (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 input
  TYPE A Connectors
  HDMI1 / 3: 3D, Content Type
  HDMI2: 3D, Content Type, Audio Return Channel
● This TV supports "HDAVI Control 5" function.

- -

ETHERNET
  10BASE-T / 100BASE-TX

USB 1 / 2

DC 5 V, Max. 500 mA [Hi-Speed USB (USB 2.0)]

DIGITAL AUDIO OUT

PCM / Dolby Digital / DTS, Fibre optic

Receiving systems / Band name

	17 Systems	Function
1	PAL B, G, H	Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders
2	PAL I	
3	PAL D, K	
4	SECAM B, G	
5	SECAM D, K	
6	SECAM K1	
7	NTSC M (NTSC 3.58/4.5 MHz)	
8	NTSC 4.43/5.5 MHz	Playback from Special VCR's or DVD
9	NTSC 4.43/6.0 MHz	
10	NTSC 4.43/6.5 MHz	
11	NTSC 3.58/5.5 MHz	
12	NTSC 3.58/6.0 MHz	
13	NTSC 3.58/6.5 MHz	
14	SECAM I	
15	PAL 60 Hz/5.5 MHz	Playback from Special Disc Players and Special VCR's or DVD
16	PAL 60 Hz/6.0 MHz	
17	PAL 60 Hz/6.5 MHz	

Digital terrestrial TV

GB20600-2006 free-to-air TV broadcast reception

Receiving channels (Analogue TV)

VHF BAND

2-12 (PAL/SECAM B, K1)

0-12 (PAL B AUST.)

1-9 (PAL B N.Z.)

1-12 (PAL/SECAM D)

1-12 (NTSC M Japan)

2-13 (NTSC M USA)

UHF BAND

21-69 (PAL G, H, I/SECAM G, K, K1)

28-69 (PAL B AUST.)

13-57 (PAL D, K)

13-62 (NTSC M Japan)

14-69 (NTSC M USA)

CATV

S1-S20 (OSCAR)

1-125 (USA CATV)

C13-C49 (JAPAN)

S21-S41 (HYPER)

Z1-Z37 (CHINA)

5A, 9A (AUST.)

Aerial input

VHF / UHF

Operating conditions

Temperature

0 °C - 40 °C

Humidity

20 % - 80 % RH (non-condensing)

Built-in wireless LAN

Standard compliance and Frequency range[1]

IEEE802.11a/n

5.15 GHz - 5.35 GHz, 5.47 GHz - 5.85 GHz

IEEE802.11b/g/n

2.400 GHz - 2.4835 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).

■ 3D Eyewear

Dimensions (W × H × D)

165 mm × 38 mm × 166 mm

Mass

Approx. 18 g

Usage temperature range

0 °C - 40 °C

Materials

Main body / Lens section

Resin

● Use Panasonic 3D Eyewear supporting passive 3D system technology.

> **Note**

● Touch Pad Controller uses Bluetooth wireless technology.

● Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.

● For the information of the open source software, refer to [eHELP] (Support > Licence).

● TH-42AS670H, TH-50AS670H, TH-55AS670H, TH-60AS700H comply with China Terrestrial Television National Standard (GB20600-2006) Mode-C=3780.

■ When using 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
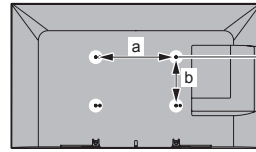
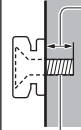42-inch model

a: 200 mm

b: 200 mm

50-inch model
55-inch model
60-inch model

a: 400 mm

b: 200 mm

(View from the side)

Depth of screw

42-inch model

minimum: 8 mm

maximum: 18 mm

50-inch model   55-inch model

minimum: 9 mm

maximum: 18 mm

60-inch model

minimum: 10 mm

maximum: 20 mm

Diameter: M6

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

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Customer's Record

The model number and serial number of this product may be found on its rear panel. 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

English

Printed in Malaysia