OPERATION MANUAL

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of trouble-free operation of your product, please read the Important Safety Precautions carefully before using this product.

Contents

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Precautions for daily use

Observe the following items

Maintenance of the cabinet
- When cleaning the cabinet, use a soft cloth (made of cotton, floss, etc.) to clean gently.
  Do not use a dry or damp rag mixed with chemicals, as this could cause the ingredients of the cabinet body to deteriorate or crack.
- Be careful not to use an abrasive cloth for cleaning or clean with excessive force, as this could scratch the surface of the cabinet.
- If the cabinet is greatly soiled, clean with a soft cloth (made of cotton, floss, etc.) soaked with a small amount of diluted neutral detergent and wrung out, and then clean with a soft dry cloth.
- Because the cabinet is made of plastic, solvents such as benzene, alcohol or thinner could cause it to deteriorate, or make its coating come off. Therefore do not use such solvents to clean the cabinet.
- Because plasticizer is included in the plastics, deterioration or the coating peeling off could occur when the cabinet comes into contact with some substances. Therefore keep it away from volatile substances such as insecticide. In addition, do not let it come into contact with objects made of rubber, resin, etc. for a long time.

Maintenance of the LCD panel
- Before cleaning the LCD panel, be sure to turn off the TV set and unplug the power cord from the outlet.
- When cleaning the LCD panel, use a dry and soft cloth (made of cotton, floss, etc.) to clean the surface of the LCD panel gently. For protecting the LCD panel, do not clean with a dirty cloth, detergent, or a dry or damp rag mixed with chemicals, as this could cause peeling of the panel surface.
- Be careful not to clean with an abrasive cloth or with excessive force, as this could cause the panel surface to be scratched.
- If the LCD panel is greatly soiled, clean it gently with a soft cloth (made of cotton, floss, etc.) soaked with a small amount of water (Do not clean with excessive force, so as to avoid the scratch of the panel surface).
- If dust sticks on the surface of the LCD panel, clean the panel with a commercially available cleaning brush (anti-static brush).

Important safety precautions

- Cleaning — Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use alcohol cleaners, spray cleaners or chemical cloth when cleaning because these types of materials may damage the product.
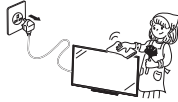
- Water and moisture — Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.

- Do not place vases or any other water-filled containers on this product. Do not place the product under air conditioner, humidifier and so on. The water may spill onto the product causing fire or electric shock.

- Stand — Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.

- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.

- Ventilation — The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
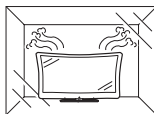
- In case the product is dropped and the cabinet is damaged, be sure to turn off the power of the product, and unplug the power cord. If you continue to use the product, it may cause fire or electric shock.

- Do not open the rear cover of the cabinet to reconstruct the circuits. There exists high voltage within the cabinet and it may cause electric shock and injury. If maintenance is required, contact your dealer.

- The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is broken, be careful not to be injured by broken glass.
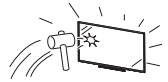
- Heat sources — Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers)

- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.
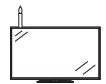
- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.
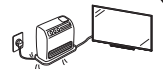
- Do not place heavy objects on this product or stand on it. Doing so could cause injury if the product overturns. Take special care near children and pets.

- Unplug the power cord before you move the TV set. If not unplugged beforehand, the power cord may become damaged and cause electric shock.

The LCD panel is a very high technology product with 8,294,400 pixels, giving you fine picture details.
Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red.
This is within product specifications and does not constitute a fault.

Precautions when transporting the TV

- When transporting the TV, never carry it by holding or otherwise putting pressure onto the display.
  Be sure to always carry the TV by at least two people holding it with two hands — one hand on each side of the TV.
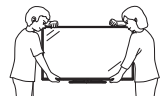
- Do not display a still picture for a long time, as this could cause an afterimage to remain.

- Install the product on the place where the AC cord can be unplugged easily from the AC outlet.

NOTE

- The above are pictures for reference only; the actual item might be different.

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- This SHARP device facilitates the access to content and services provided by third parties. The content and services accessible via this device belong to and may be proprietary to third parties. Therefore, any use of such third party content and services must be in accordance with any authorization or terms of use provided by such content or service provider. SHARP shall not 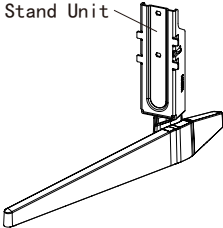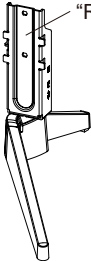be liable to you or any third party for your failure to abide by such authorization or terms of use. Unless otherwise specifically authorized by the applicable content or service provider, all third party content and services provided are for personal and non-commercial use; you may not modify, copy, distribute, transmit, display, perform, reproduce, upload, publish, license, create derivative works from, transfer or sell in any manner or medium any content or services available via this device.
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- The operation manual has been collated and checked strictly. Due to factors such as software upgrading,SHARP can not guarantee that the actual operation keeps pace with the manual description.

Accessories

Supplied accessories

Make sure the following accessories are provided with the product.

Remote control unit	"AAA" size battery (×2)	Operation manual
Used with batteries inserted. Page 10	Page 14	
Stand unit		
"L" Stand Unit "R" Stand Unit Stand Unit (x2) Screws (x4) Page 7		

Preparation

Attaching the stand unit

- When you attach the stand unit, put the TV on a flat surface.
- Before attaching (or detaching) the stand unit, unplug the AC power cord from the AC power outlet.
- Before performing work, spread cushioning over the surface on which you will be laying the TV. This will prevent it from being damaged.

⚠️**CAUTION**

- **Attach the stand unit in the correct direction.**
- **Be sure to follow the instructions. Incorrect installation of the stand unit may result in the TV falling over.**

1 Place the TV on a flat surface with soft cushion on top of it. Insert the stand unit into the slot on the bottom of the TV while holding the stand unit to avoid it falling over.

Soft cushion

"L" Stand Unit
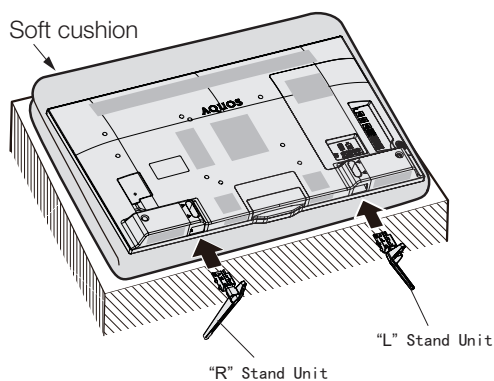
"R" Stand Unit

📝 **NOTE**

- When installing the stand unit, you need to put your TV on a flat surface. Before that, put a soft cushion on the surface.
- To detach the stand unit, perform the steps in reverse order.
- The angle of the stand unit is not adjustable.
- A screwdriver is not supplied with this product.
- During installation, please be careful to avoid getting your hand trapped between the TV bottom and the floor.
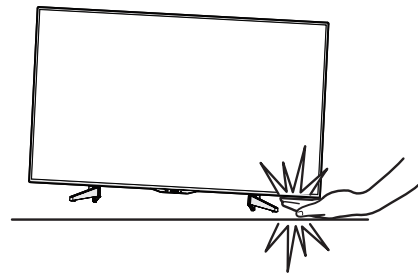
2 Insert the four screws into the four holes on the back of the TV, and tighten them.

Screws
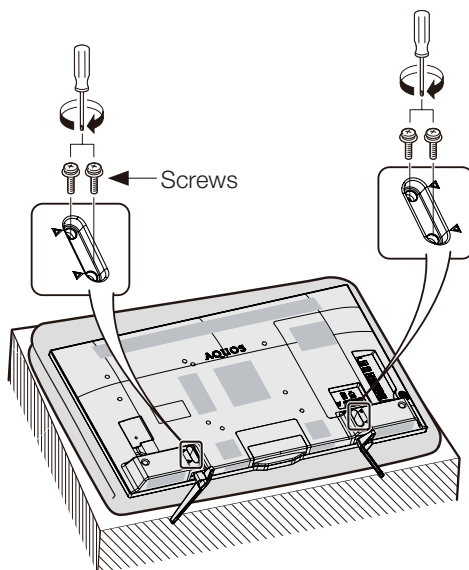
Handling and precautions with the wall-mounted TV

• You can mount the TV on the wall using the optional bracket.
• For details, refer to the instructions supplied with the optional bracket.

CAUTION

• **This TV should be mounted on a wall only with a wall mount bracket recommended by SHARP. The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.**
• **Installing the TV requires special skills that should only be performed by qualified service personnel. Customers should not attempt to do the work themselves. SHARP bears no responsibility for improper mounting or mounting that results in accident or injury.**

Using a SHARP recommended bracket to mount the TV

• You can ask a qualified service professional about using a SHARP recommended bracket to mount the TV to the wall.
• Carefully read the instructions that come with the bracket before beginning work.

Part names

TV (Front)

Remote control sensor   Power indicator
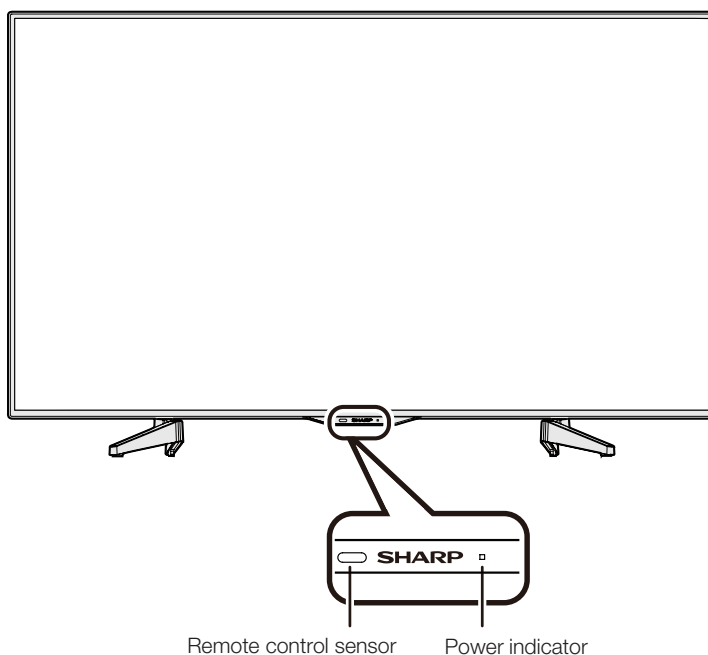
• The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.
• The illustrations used throughout this operation manual are based on LC-50S4H.

Preparation

TV (Rear)

USB 1 terminal

SD/SDHC card slot

USB 2 terminal

HDMI 1 terminal

HDMI 2 terminal

Antenna terminal (ATV/DTV)

HDMI 3 terminal

DIGITAL AUDIO OUTPUT terminal

Operation button

LAN terminal

COMPONENT /AV input terminal

For service terminal
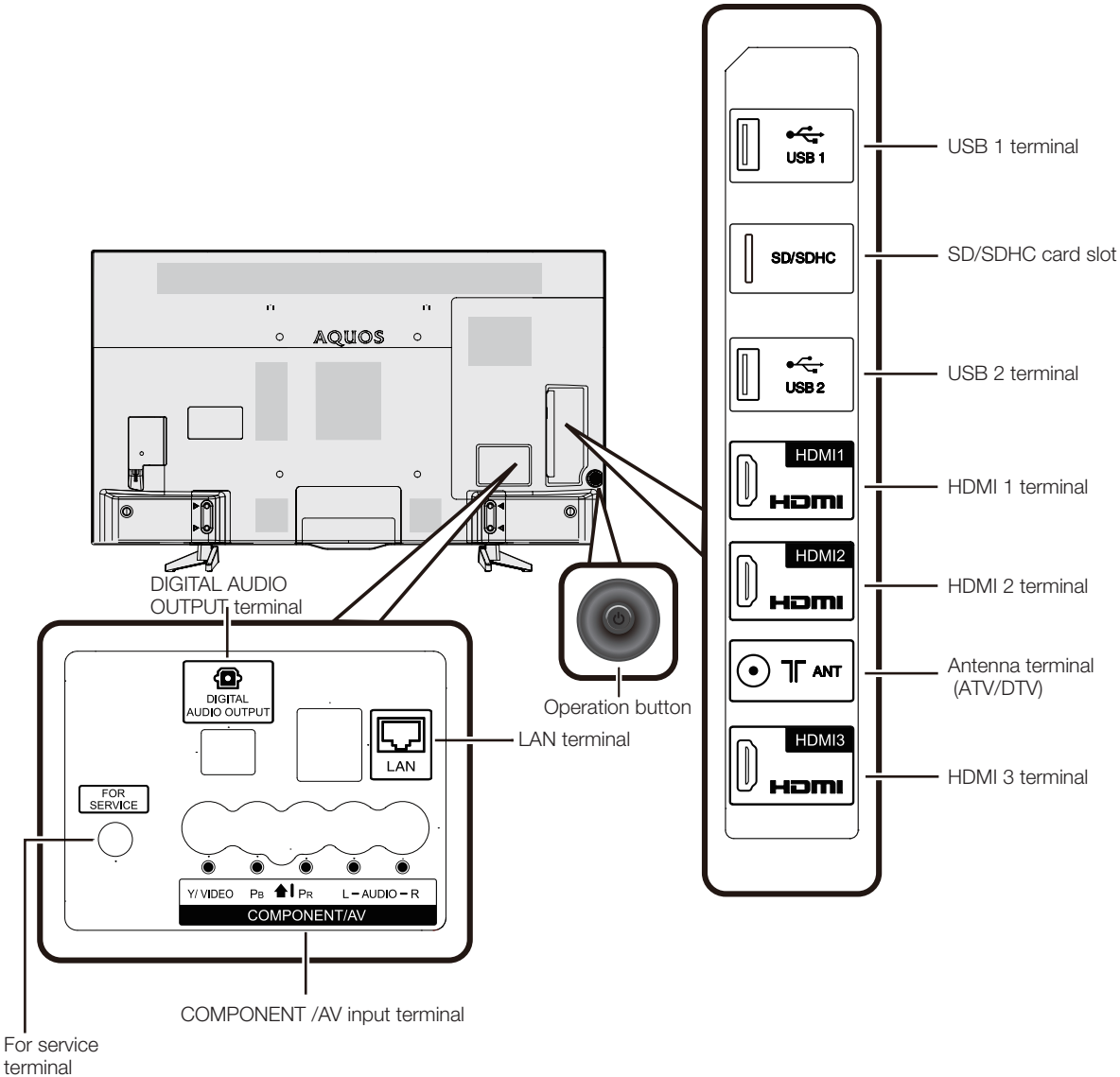
Remote control unit
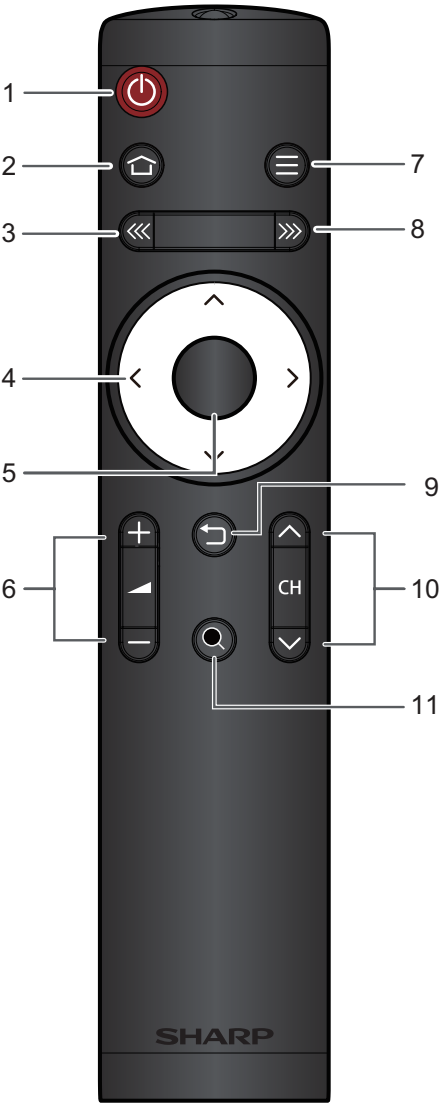
1 ⏻ **(POWER (Standby/On))**
To switch the power on and off. (See page 15.)

2 ⌂ **(HOME)**
Display the smart home.

3 ⟪ **(PREVIOUS)**
Press to the previous page of smart home.

4 ▲/▼/◄/► **(Cursor)**
Select a desired item on the setting screen.

5 **OK**
Execute a command.

6 **VOL + / −**
Set the volume.

7 ≡ **(MENU)**
Display the menu list.

8 ⟫ **(NEXT)**
Press to the next page of smart home.

9 � **(RETURN)**
Return to the previous menu screen.

10 **CH∧/∨**
TV input mode: Select the channel.

11 Q **(BROWSER)**
Start browser.

The operation button

You can also setup the TV through the operation button at the TV back. (The position of the operation button, please see page 9)

Action	Description
Short press	Turn on the TV.
Left/Right	Set the volume reduction/add.
Up/Down	Set the channel up/down.
Long press	Display the menu(Power off)when the TV is switched on.

Before turning on the power

Notes on installing the TV

- Avoid direct sunlight and place the TV in a well-ventilated location.
- Place the TV in a level location.
- Do not turn on the power of the TV before connecting the AC cord.
- If there are any protective plastic sheets on the TV cabinet, please take them off before connecting.

1 **Connecting the antenna cable**

To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for coaxial cable.

Standard
DIN45325 plug
(IEC169-2)
75-ohm coaxial
cable (round cable)

Antenna cable
(commercially available)

To antenna terminal

Room antenna terminal
(75-ohm type)
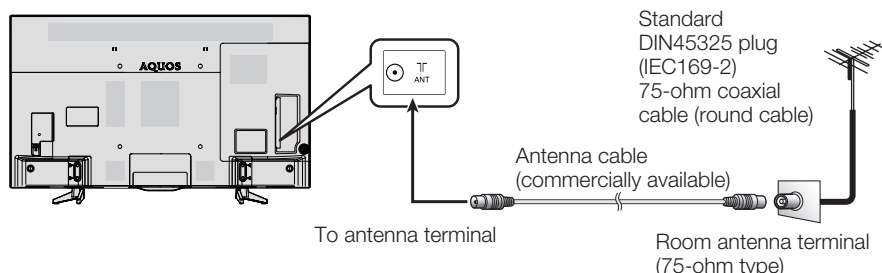
2 **Connecting external devices**

See page 12 and 13 for connecting external equipment, such as a VCR and DVD player.

3 **Plug the AC cord into the AC outlet.**

TV (rear view)
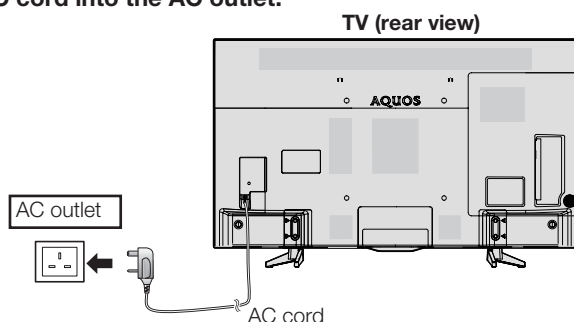
AC outlet

AC cord

- Place the TV close to the AC outlet, and keep the power plug within reach.
- Disconnect the AC cord from the AC outlet if the TV will not be used for a long period of time.

4 **Bundling the cables**

As the picture illustrated, insert the cable clip into the hole on the TV, and put the cable into the cable clip for banding.

① Fix AC cord and other wires with a wire holder.

② Pull the band through the hole to adjust the degree of tightness.

If the band is too long,
pull it through the other hole.

To loosen the wire holder,
press the button.

CAUTION
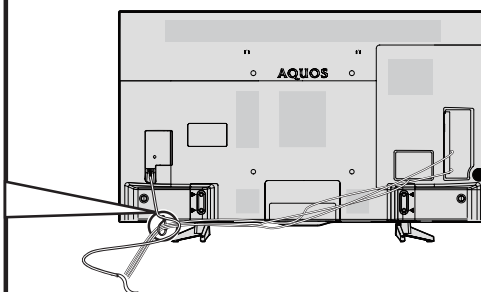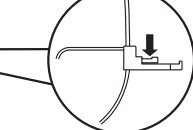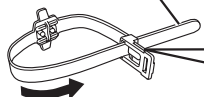
- **To prevent risk of electric shock , do not touch un-insulated parts of any cables with the AC cord connected.**

Connecting external devices

You can connect many types of external equipment to your TV, like a VCR, Digital TV Set Top Box (STB), game console, camcorder, DVD player and PC. To view external source images, press ⌂ (**HOME**) to the smart home interface, press ⟪ / ⟫ to switch to the TV, select the input source and then press **OK**.

CAUTION

- To protect all equipment, always turn off the TV before connecting to a VCR, game console, camcorder, DVD player, Digital TV Set Top Box (STB), PC or other external equipment.
- Refer to the relevant operation manual (Digital TV Set Top Box (STB), VCR, DVD player, etc.) carefully before making connections.

■ When using HDMI cable (commercially available)

Digital TV STB/VCR/Game console/Camcorder/DVD Player/PC
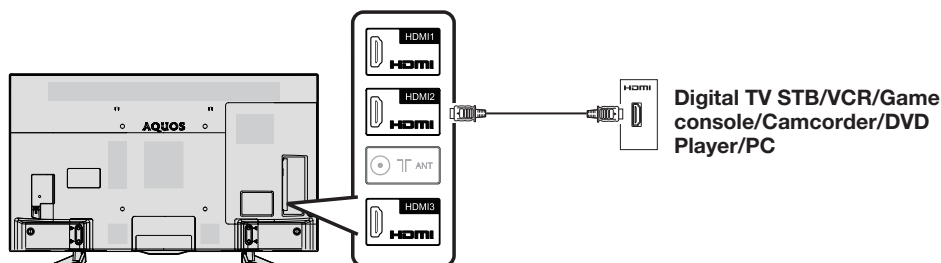
NOTE

- When using a TV set-top box to watch TV programs, use the set-top box remote control to switch channels.

■ When using component cable* (commercially available)

Digital TV STB/VCR/ Game console/ Camcorder/DVD Player
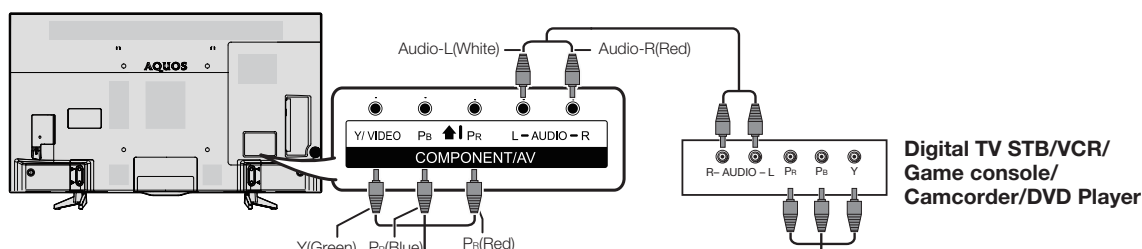
* The component and AV input share the same terminal.

NOTE

- Insert the terminals by colour.

■ When using AV cable* (commercially available)
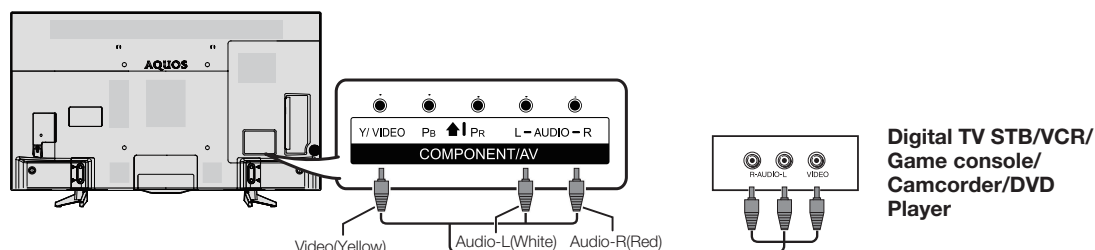
Digital TV STB/VCR/ Game console/ Camcorder/DVD Player

* The component and AV input share the same terminal.

NOTE

- Insert the terminals by colour.

Using digital audio output

It is possible to output audio through the DIGITAL AUDIO OUTPUT terminal. PCM or RAW (Dolby or DTS Digital audio) outputs from the terminal.

To optical digital input of external audio devices.
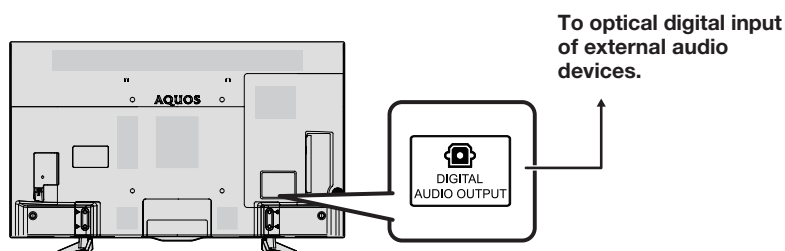
🖉 **NOTE**

- The DIGITAL AUDIO OUTPUT terminal usually outputs the same audio from the speakers. (The audio of the content you are viewing is output from the terminal.)
- The DIGITAL AUDIO OUTPUT terminal does not output some signals, depending on devices and software.

Inserting a SD/SDHC memory card (commercially available)

It provides access to Apps ,video,music,and other files in SD/SDHC memory cards.
Insert a SD/SDHC memory card that stores your files into the SD slot. Refer to the method of playing files stored in the USB device specified on page 24 for details.
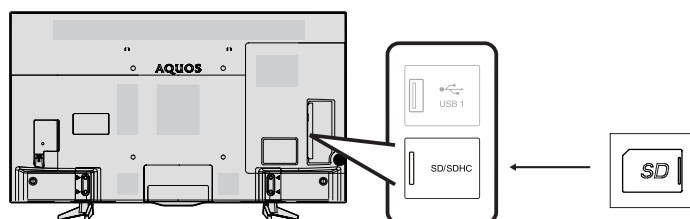
🖉 **NOTE**

- Insert the memory card into the slot in the direction shown in the figure.
- The SD slot supports SD and SDHC memory cards. However some memory cards may not be supported.
- This product supports memory cards with a maximum storage of 32 GB. We recommend that you use a memory card with at least a speed of Class 4 for a higher read-write speed, thus guaranteeing the system performance.
- Unplug the memory card after you have safely unloaded it or the TV has been turned off.
- Do not unplug the memory card while data is being transferred. Otherwise the TV may malfunction.
- Regularly back up data in the memory card to prevent data corruption or operating errors of the TV. (SHARP shall not bear any responsibility for data corruption or destruction.)

Connecting a USB memory device

See page 24.

Connecting to the Network

See page 21 to 22.

Inserting the batteries

Before using the TV for the first time, insert two "AAA" size batteries (supplied). When the batteries become depleted and the remote control fails to operate, replace the batteries with new "AAA" size batteries.

1 Open the battery cover.

2 Insert the two supplied "AAA" size batteries.
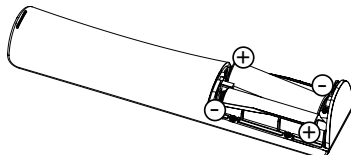
3 Close the battery cover.
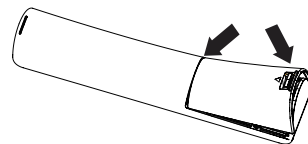
- Place batteries with their terminals corresponding to the $(+)$ and $(-)$ indications in the battery compartment.

CAUTION

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.
- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
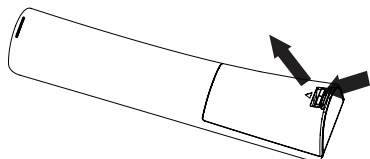- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove the batteries from it.
- Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

Using the remote control unit

Use the remote control unit by pointing it towards the remote sensor window.
Objects between the remote control unit and sensor window may prevent proper operation.

5 meters

Remote control sensor
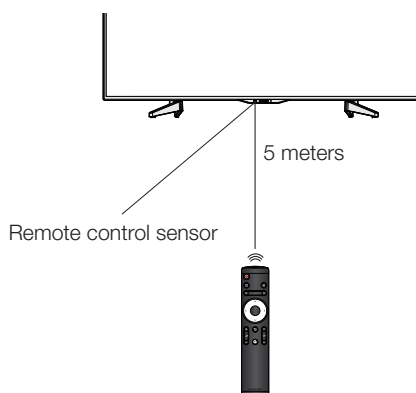
Cautions regarding the remote control unit

- Do not subject the remote control unit to shock.
  In addition, do not soak the remote control unit with liquids or place it in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight.
  The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote sensor window of the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or TV, or operate the remote control unit closer to the remote sensor window.
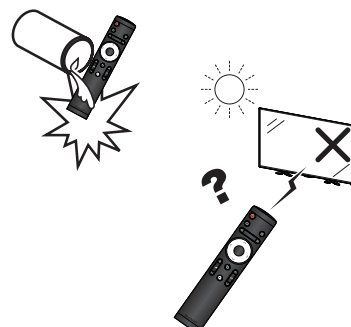
Turning the TV on/off

Running the TV for the first time

After inserting the AC cord, the TV is in standby.
Press ⏻ (**POWER**) on the remote control or on the TV:

- The power indicator turns green. TV is switched on.
- You can switch the TV to standby by pressing ⏻ (**POWER**) on the remote control .

Turning off the TV

If the TV is switched on, press ⏻ (**POWER**) on the remote control or the ⏻ (**POWER**) on the TV:

- TV is switched into standby and the image disappeared.
- The power indicator turns red from green. Press ⏻ (**POWER**) on the remote control to turn on the TV .
- If you want to turn off the TV from standby, please pull out the AC cord.

■ Power indicator

Off	Power off
Red	TV is in standby
Green	TV is switched on

> **NOTE**
- If you are not going to use this TV for a long period of time, be sure to remove the AC cord from the AC outlet.
- A small amount of electric power is still consumed even the TV is in standby mode.
- If the TV loses power in special circumstances (such as power outage or grid fluctuations, etc.), it may not work well when it is switched on again. Please try to power off the TV (by the ⏻ (**POWER**) on the remote control) or unplug and replug the AC cord to restart the TV.
- It is a normal phenomenon when the TV temperature rises in the process of watching TV.
- Please do not cut off the power casually in the process of switching on or switching off the TV, running APPS or updating, otherwise TV system could not work correctly. Please turn off the TV after closing all APPS.

User Guide

When the TV powers on for the first time after purchase, the setting wizard appears. Follow the menus and make the necessary settings one after another.

Confirm the following before turning on the power
- Is the antenna cable connected?
- Is the AC cord plugged in?

Press ⏻ (POWER) on the TV.
- It displays the boot screen , and then "Language Setting" appears.
- It may cost a little time when TV is switched on for the first time. Please wait patiently.

■ Language Setting

You can select the Language Setting among the " 繁體中文 ", "简体中文 " and "EN" .

■ Start Settings

You can start settings according to the following steps.

■ Mode Setting

You can select the mode between "Home" and "Store".
- "Home": "STANDARD" will be the default value for the "AV mode" setting.Please select "Home" when you watch TV at home.
- "Store": "Store" is only for retail store displays. "DYNAMIC (Fixed)" will be the default value for the "AV mode" setting. If the "AV mode" is changed, the TV will automatically switch back to "DYNAMIC (Fixed)" when there is no further change to TV setting for 10 minutes.

■ TV Channels Setting

The TV will sort and store all the receivable TV channel according to their settings and the connected antenna.

■ Network Setting

You can select "Ethernet" or "Wi-Fi" to connect the network.

Watching TV

When the initial setup has completed, you can enter to smart home.

Press the ◄/►, or ⟨⟨⟨ / ⟩⟩⟩ to switch the page of smart home. If you want to watch TV, press ▲/▼/◄/► to select ATV, DTV or the input sources, and then press **OK**. Move to the programme and press **OK** to play the program in full-screen.

MENU

MPX

You can switch between multiple audio modes when watching a multiple audio or stereo broadcast programme.

In the NICAM TV broadcasts

Signal	Mode switch
When receiving a stereo signal	NICAM STEREO , MONO
When receiving a bilingual signal	NICAM DUAL Ⅰ , NICAM DUAL Ⅱ , NICAM DUAL Ⅰ + Ⅱ , MONO.
When receiving a monaural signal	NICAM MONO, MONO

In the TV mode of A2 TV broadcasts

Signal	Mode switch
When receiving a stereo signal	STEREO, MONO
When receiving a bilingual signal	CH A, CH B, CH AB
When receiving a monaural signal	MONO

1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "MPX" and then press **OK**.

3. Press ◄/► , press **OK** to select the desired audio language .

◇ NOTE
• Select the audio language for ATV only.

Audio Language

Setup preferred audio language for DTV only.

1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "Audio Language" and then press **OK**.

3. Press ▲/▼ to select the desired audio language, and then press **OK**.

Subtitle Language

Setup preferred subtitle language if the subtitle languages are available.

1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "Subtitle Language" and then press **OK**.

3. Press ▲/▼ to select the desired subtitle language, and then press **OK**.

Back

You can switch the currently tuned channel or external input source to the previously tuned channel or external input source.

1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "Back" and then press **OK**.

3. According to the above steps 1 and 2, you can return to the currently tuned channel or external input source.

Info

Display the information of the programs, only for DTV.

1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "Info" and then press **OK**.

EPG

The EPG(Electronic Programme Guide) is broadcasted together with DTV. The TV screen shows the EPG when you select it , provided that the TV is receiving the digital broadcasting signal. The EPG enables you to check the schedule of DTV and view detailed information.
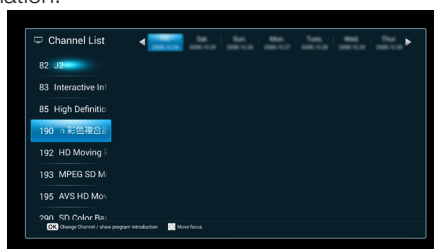
1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "EPG" and then press **OK** to display programme information.

◇ NOTE
• The time displayed on the EPG is information sent by the TV station.

Program List

Display the channel list.

1. Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2. Press ▲/▼ to select "Program list" , and then press **OK**.

3. Press ▲/▼ to select the desired channel , and then press **OK** to switch to the selected channel.

Program Edit

Use this menu to set up a channel individually.

1 Press ☰ (**MENU**) to display the menu screen in full-screen TV programs.

2 Press ▲/▼ to select "Program Edit",and then press **OK** to display the channel list.

3 Press ▲/▼ to select the desired channel.

■ Label

You can change individual channel names.

1 Press ◀/▶ to select "Label", and press **OK**.

2 Press ▲/▼/◀/▶/ **OK** to select a character, and then press ⏎ (**RETURN**) to save and exit.

NOTE
- Maximum 8 alphanumerics can be input.
- Labeling is only available for the ATV mode.

■ Sort

Channel positions can be sorted freely.

1 Press ◀/▶ to select "Sort", and press **OK**.

2 Press ▲/▼ to move it to the desired position, and then press **OK**.

3 Repeat the above operation until the completion of all of the channel.

■ Skip

Channels which have been setted to "Skip" are passed over , even if using **CH∧/∨** to select them.

1 Press ◀/▶ to select "Skip", and press **OK**. The channel has been skipped.

2 You can select "Skip" and press **OK** again to cancel the skip.

■ Delete

Channels can be erased individually.

Press ◀/▶ to select "Delete". Press **OK** to select "Yes", and then press **OK** to erase the selected channel.

Numeric Pad

Use numeric pad to input the channel number you desired .

HDMI Select

When you connect external device to output 4K (60Hz) signal, please use the HDMI3 terminal and select "4K (60Hz)".

1 Press ☰ (**MENU**) to display the menu screen with full screen HDMI3 TV signals .

2 Press ▲/▼ to select "HDMI Select" to "4K(60Hz)", and then press **OK**.

Settings

According to your needs to set the options table.

General

Skin setting

You can change the skin of smart home.

Select from "Colour Surge" or "Minty Fresh".

Booting state

You can set booting state between "TV" and "Smart home".

NOTE
- "TV": When turn on the TV, it displays TV mode.
- "Smart home": When turn on the TV, it displays the smart home.

Language

You can select a language from the menu.

Select from among 3 languages: English, 繁體中文 , 簡體中文 .

Default input method

For setting input method.

NOTE
- The initial installation of the TV is "IQQI-Chinese Pro".
- If you use any other input method, SHARP cannot guarantee its compatibility with television system.

Quick start

The function can shorten the start-up time of the TV.

No signal power off

You can set the TV to automatically power off in about 15 minutes after the TV goes into a state of receiving no programme signals.

Five minutes before the power shuts down, the remaining time displays every minute.

Sleep timer

Auto power-off at a designated time.
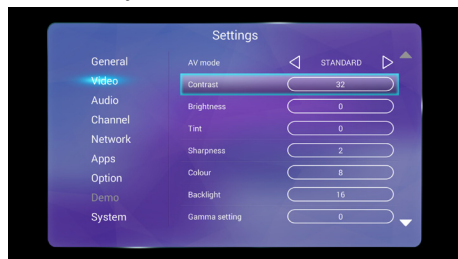You can choose from "Off", "30min.", "60min.", "90min.", "120min." or "150min.".

NOTE
- When the time has been set, countdown automatically starts.
- Five minutes before the preset of time expires, the remaining time displays each minute.

Video

Set the video as you desired .

AV mode

The "AV mode" function enables you to select appropriate settings for audio and video to account for the system environment.

Selected item	Description
COMPUTER	For PC signal. (Available only when inputting a signal from HDMI terminal.)
STANDARD	For a highly defined image in a normally bright room.
MOVIE	For viewing the movies.
GAME	Lowers image brightness for easier viewing.
USER	Allows the user to customise settings as desired. You can set the mode for each input source.
DYNAMIC	For a clear-cut image emphasising high contrast for sports viewing.
DYNAMIC (Fixed)	Changes the image and sound settings to the factory preset values. No adjustments are allowed.

✎ NOTE

• You can select a different "AV mode" item for each input mode.

Contrast/Brightness/Tint/Sharpness/Colour/Backlight/Gamma setting

You can adjust the picture to your preference.

| Selected item	◀button	▶button
Contrast	For less contrast.	For more contrast.
Brightness	For less brightness.	For more brightness.
Tint	Skin tones become reddish.	Skin tones become greenish.
Sharpness	For less sharpness.	For more sharpness.
Colour	For less colour intensity.	For more colour intensity.
Backlight	The screen dims.	The screen brightens.
Gamma setting	For less middle brightness.	For more middle brightness.

Colour temp. (Colour temperature)

Adjusts the colour temperature to give the best white image.

You can select "High", "M-high", "Middle", "M-low", or "Low".

Wide mode

You can select different picture sizes that account for the kind of each picture.

Selected item	Description
Normal	For 4:3 standard pictures. A side bar appears on each side.
Zoom 14:9	For 14:9 letterbox pictures. A thin side bar appears on each side, and you may also see bars on the top and bottom with some programmes.
Panorama	In this mode the picture is progressively stretched toward each side of the screen.
Full	For 16:9 squeeze pictures.
Cinema 16:9	For 16:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.
Cinema 14:9	For 14:9 letterbox pictures. Bars may appear on the top and bottom with some programmes.
Dot by Dot	Display an image with the same number of pixels on the screen (only when receiving 2160p signal).
Underscan	Display with an underscan image only when receiving a 720p / 1080i / 1080p signal. Display with the High-Definition image adjusted optimally. Noise may appear on the edge of the screen with some programmes.
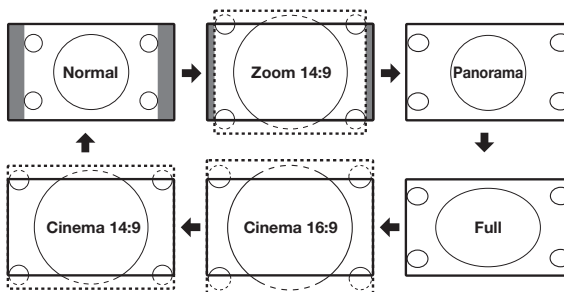
✎ NOTE

• Some picture sizes may not be displayable depending on the input signal.
• "Zoom 14:9" and "Cinema 14:9" are only available for the DTV or ATV mode.

DNR

Reduce noise on screen and produces a clearer video. You can select "Auto", "High", "Low", or "Off".

Fine Motion

Using the fine motion function can view the high speed motion image more clearly.
You can select "Advanced", "Standard", or "Off".

✎ NOTE

• Only applicable for 24/30Hz input signal.

Active contrast

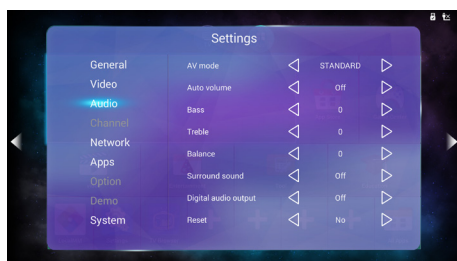Automatically adjust the contrast of an image according to the scene.

Reset

Reset all picture adjustment items to the factory preset.

Audio

Set the audio as you desired .

AV mode

Please see page 18.

Auto volume

Different sound sources sometimes do not have the same volume level, such as a programme and its commercial breaks. The automatic volume control (Auto volume) reduces this problem by equalizing levels.

Bass/Treble/Balance

You can adjust the audio of the selected AV mode.

Selected item	◀button	▶button
Treble	For weaker treble	For stronger treble
Bass	For weaker bass	For stronger bass
Balance	Decrease audio from the right speaker	Decrease audio from the left speaker

NOTE
• They cannot be changed during "DYNAMIC (Fixed)" mode.

Surround sound

The surround sound function produces a surround effect from the speakers.

Digital audio output

This function allows you to select your favourite audio output system.

| Item	Description
PCM16	The optical output format is normally in PCM.
RAW	Dolby Digital or DTS is output when the Dolby Digital or DTS audio formats are received.

NOTE
• Analog channel audio and video input audio are output in PCM mode even when "RAW" is selected.
• PCM digital input signals are output in PCM mode even when "RAW" is selected.

Reset

Reset all audio adjustment items to the factory preset values.

Channel

Set the channel as you desired .
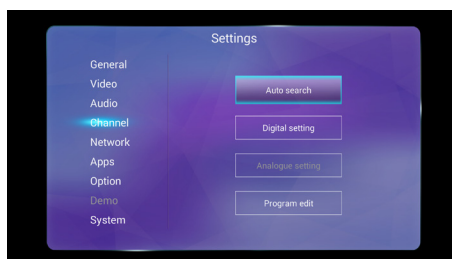
Auto search

You can run auto installation again, even after setting up the preset channels.

NOTE
• Auto search can only search channels from the current mode.

Digital setting

You can set some DTV channel items manually.

■ Auto search

Use this menu to add new DTV services automatically after auto installation has been completed.

■ Manual search

Add new services within a specified frequency band.

■ Signal info

Show the "Channel No.", "Freq", "Signal strength" and "Signal quality" of the current program.

NOTE
• The values of "Signal strength" and "Signal quality" indicate when to check the appropriate alignment of the antenna.

Analogue setting

You can set some ATV channel items manually.

■ Auto search

Use this menu to add new ATV services automatically after auto installation has been completed.

■ Manual search

You can set the channel manually.

| Item	Description
Storage to [1~99]	Save programme to your desired channel number. Press **OK** to save.
Current CH	Select the channel you want to edit.
Colour system	Select the optimum colour system to receive. (PAL, SECAM, NTSC)
Sound system	Select the optimum sound system (Broadcasting system) to receive. (BG, DK, I, MN)
Search	Start searching from current channel. You can search the next channel by pressing ◄/► to adjust the frequency .
Fine-Tune	Tune the frequency of the stored channel to your desired position.

Program edit

Please see page 17.

Network

Please see pages 21 to 22.

Apps

Please see pages 23.

Option

For setting other items.
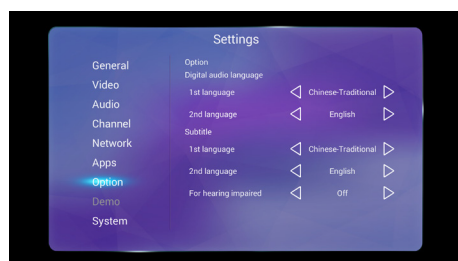
Digital audio language

Set up to preferred multi audio languages to display if the audio languages are available.

✎ NOTE

- This function depends on audio language information from broadcasters.
- If audio for the selected language is not included in a received broadcast, audio will not be output for that language.

Subtitle

Setup preferred subtitle language if the subtitle languages are available.

✎ NOTE

- If subtitles for the selected language are not included in a received broadcast, subtitles will not be shown for that language.

For hearing impaired

If the broadcast includes subtitles for the hearing impaired, they will take precedence over other subtitles.

✎ NOTE

- If the broadcast includes no subtitles for the hearing impaired, they will not be displayed even when set to "On".

System

You can view and set the info about the system.

System info

From here , you can view the Hardware info and Software info.

Legal info

From here , you can view the open source licenses.

Local update

This function allows you to transform to the latest software via a USB device.

✎ NOTE

- If the software is not compatible with the system, an error message appears on the screen. Please enter Settings → System → Local update to operate.
- When an error message displays, check to see if
  - The USB device is inserted firmly.
  - The USB memory has two or more software files.
  - No software for updating the system exists in the USB memory.
  - The software file is broken.
  - The software file is not compatible with your TV's software.
- Please do not turn off TV or execute other operations during version up.

System recovery

If complex adjustments are made and the settings cannot be restored to normal, you can reset the settings to the factory preset values.

Network function

Connecting to the Network

To enjoy internet services, you need to connect the TV to a router with a high speed connection to the internet.
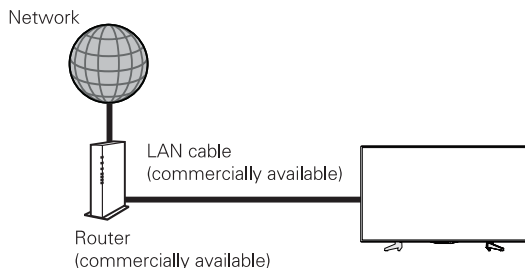
> **NOTE**
> • If you do not have a broadband internet connection, consult the store where you purchased your TV or ask your internet service provider or telephone company.
> • A stable connection speed is required to play back streaming content, otherwise you may not be able to watch normally.
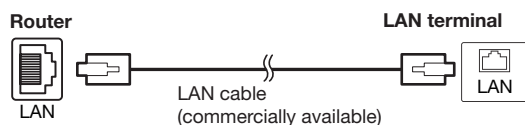
Wired installation

Switch on the router (commercially available). Refer to the router's operation manual for switching on. Connect the LAN terminal on the TV to the router (commercially available) with a LAN cable (commercially available).

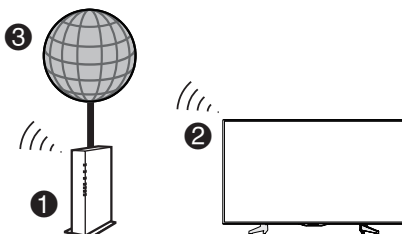#### ■ Wired connection overview

■ How to connect

Wireless installation

Switch on the router (commercially available). Refer to the router's operation manual for switching on.

❶ Wireless LAN router/access point
❷ TV
❸ Network

> **NOTE**
> • This TV has received the following certifications.
>   – Wi-Fi CERTIFIED™ (certification program from the Wi-Fi Alliance®)
> • A wireless LAN connection and performance cannot be guaranteed for all residential environments. In the following cases, the wireless LAN signal may be poor or drop, or the connection speed may become slower.
>   – When used in buildings made with concrete, reinforced steel, or metal.
>   – When placed near objects that obstruct the signal.
>   – When used with other wireless devices that emit the same frequency.
>   – When used in the vicinity of microwave ovens and other devices that emit a magnetic field, electrostatic charge, or electromagnetic interference.
> • Make sure the firewalls in your network allows access to the TV wireless connection.
> • Operations cannot be guaranteed when used with access points that do not have Wi-Fi® certification.
> • A wireless LAN access point is required to connect the TV to the Internet using a wireless LAN. See the operation manual of your access point for setup.
> • A stable connection speed is required to play back streaming content. Use a wired connection if the wireless LAN speed is unstable.
> • As there are lots of formats in the internet, some formats may not be supported by this TV unit.
> • Before transferring to a third-party or disposal, be sure to initialise the wireless LAN settings.

Network setting

Select "Setting" in the menu, and then press **OK**.
Press ▲/▼ to select "Network", and then press **OK**. It
displays the connect format.
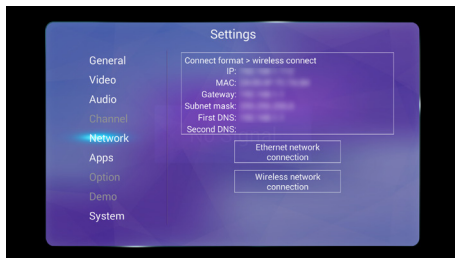
Ethernet network connection

You can select "Ethernet" to connect the network.

■ DHCP

System will attempt to obtain IP address and other
information automatically.

■ Manual connection

You can setup IP address, Gateway, Subnet mask,
First DNS and Second DNS following the on-screen
instructions.

Wireless network connection

You can select "Wi-Fi" to connect the network.

When adjust "Wi-Fi" to "On", it displays the nearly
wireless network.

If the current network connection security is not
open, you should enter the password from software
keyboard by pressing **OK** on the remote control.

◇ NOTE

• You can press **MENU** to select "Network" to switch the
connection between Ethernet network connection and
Wireless network connection.

■ Add network

You can add unbroadcast wireless network manually.

Enter the information about the unbroadcast wireless
network , and then select "Save". Now the TV is
connected to the unbroadcasted wireless network.

Smart function

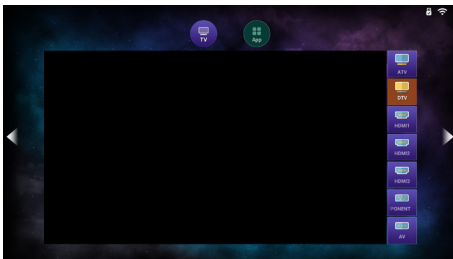You can download and install amounts of Apps from the third-party of the smart TV.

Press ⌂ (**HOME**) to display the smart home.

Smart home

Smart home will provide TV and APP screens. It's convenient for you to operate with intuitive interface.

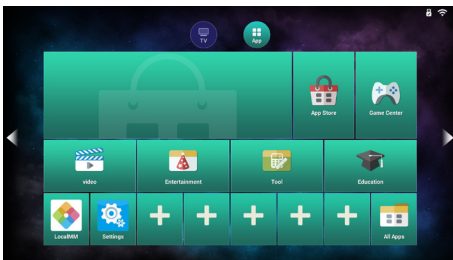You can slide screes between TV and APP, and press **OK** into specific content.

TV

Select an input source (ATV, DTV, HDMI1, HDMI2, HDMI3, COMPONENT, AV) , and then press **OK** on the remote control.

APP

Provide you mass Apps.

In APP screen, you can experience the supplied applications provided with the TV, also you can download more apps from the app store.

Installing Apps

From "App Store", select the App you desired, and install it according to prompt in the screen.

Apps

You could manage all Apps that have been downloaded into TV.

1 Select "Settings" and press **OK** in the APP screen.

2 Press ▲/▼ to select "Apps", and then press **OK**. Press ▲/▼ to select the items you want, and then press **OK**.

■ Internal storage

From here, you can view the free space and the total storage space of TV.

■ SD card storage

From here, you can view free space and the total storage space of SD card.

■ Install applications from unknown sources

From here, you can setup whether applications are allowed to install from unknown sources.

■ Default installation location

From here , you can setup the default installation location. Select from among 3 locations: Default, Internal, External.

■ My Apps

It will display applications list that have been installed. Operations such as "Force stop", "Uninstall", "Clear cache" or "Move to SD card/Move to internal" can be used to an application.

✎ **NOTE**
• When using the child mode app, if you forget password, please enter the password "3001" to reset.

■ Format SD card

To format SD card .

✎ **NOTE**
• If you format SD card , the content stored in the SD card will be deleted completely and the content is unrecoverable. Please operate it carefully.

■ Safely Remove SD card

Remove SD card after you have safely unloaded it.

✎ **NOTE**
• Do not unplug the memory card while data is being transferred. Otherwise the TV may malfunction.
• Unplug the memory card after you have safely unloaded it or the TV has been turned off.
• Please regularly back up data in the memory card to prevent data corruption or operating errors of the TV. (SHARP shall not bear any responsibility for data corruption or destruction.)

Text input

The virtual keyboard appears when you press **OK** to input text.

It provides virtual keyboard input mode. In the process, you can choose character by moving cursor, and press **OK** to complete character input. At the same time, you can change the input mode from virtual keyboard.

Browser

In App screen, select "Browser" and press **OK**, or press ⊙(**BROWSER**) on the remote control to start browsing internet.

Other useful features

You can connect a USB memory device or a USB hard disk drive (HDD) to the TV to enjoy viewing pictures, listening to the audio, and watching videos.

> 📎 **NOTE**
> - Depending on the USB memory device, the TV may not be able to recognise the data.
> - It may take time to read the data if the USB memory device contains many files or folders.
> - External subtitles for some video files may not be supported.

Connecting a USB memory device

Insert the USB memory device with recorded pictures audio or videos into the USB 1 or USB 2 terminal on the TV.
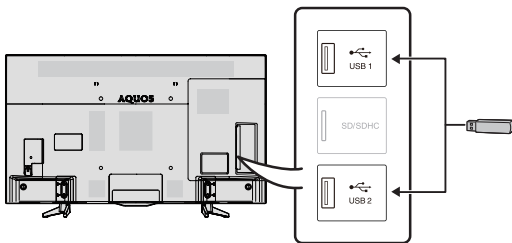
- The USB 1 and USB 2 terminals cannot be connected with USB hard disk drives at the same time.
- When connecting a USB hard disk drive, be sure to use a hard disk drive with an AC adapter.
- Do not remove the memory device from the TV while transferring files.
- Do not insert and remove a USB memory device/ USB hard disk drive to and from the TV repeatedly.
- When using a card reader, be sure to insert Memory first before using the card reader.
- The TV may not be able to recognise the card reader.
- Please follow the rules below when the TV is displaying the file of the USB device:
  —Please do not turn off the TV directly.
  —Please don't disconnect the USB device directly.
  —Please be sure to exit from USB interface before removing the USB device, otherwise you may lose the data , damage the device or TV system may not work properly.
- If the TV connects with USB-HUB, the TV may not be able to recognise all USB memory devices.

> ✋ **CAUTION**
> - **Do not use the USB extension cable, otherwise it may cause the TV does not work properly.**
> - **Please insert the USB device after the TV is powered on properly.**

Playing back files on a USB memory device

| File | Picture | Audio | Video |
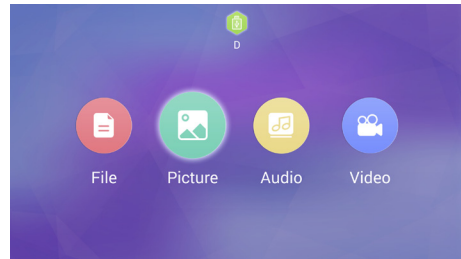
1 Press ⌂ (**HOME**) to display the smart home, Press ⟪ / ⟫ to switch to App screen and select "LocalMM" and then press **OK**.

2 Press ▲/▼/◄/► to select the device or disk drive you want.

3 Press ▲/▼/◄/► to select the desired folder, such as "File", "Picture", "Audio", "Video", and then press **OK**. Select the desired file , and then press **OK**.
- Press ↰ (**RETURN**) on the remote control, you can exit to the upper folder.

4 Press ☰ (**MENU**) to display the USB media operation menu when you view a photo or a video. Press ▲/▼ to select the relevant functions, and then press **OK**.
To know the buttons for USB media operation in detail, please see page 25.

Buttons for USB media operation

Button/menu	Description	Movie mode	Music mode	Photo mode
▶/❙❙	Play/Pause.	✓	✓	–
←	Go to the previous file.	–	✓	–
→	Go to the next file.	–	✓	–
⌐↓	Loop. Each time you press **OK**, the mode will switch from Order play, Repeating all songs, Play this song only once, Repeating current song and Shuffle is on.	–	✓	–
▤	Playlist Select a file from the playlist to start playback.	–	✓	–
▦ Scale	Press **CH**∧/∨ to switch photo size. Press ◄/▼/▲/► to move.	–	–	✓
↻ Rotate	Rotate the picture Press ◄ or ▲ to roate the image 90 degress anticlockwise, and press ► or ▼ to roate the image 90 degress clockwise. Press ↰ to exit this mode.	–	–	✓
▢ Sliding	Set the Time Interval and Animation of the slide.	–	–	✓
🖥 TV Setting	You can set the TV.	✓	✓	✓
T Subtitle Options	Set Subtitle On-off, Subtitle Select, Subtitle Switching, Subtitle Search and Subtitle Advanced.	✓	–	–
▥ Audio Options	Select audio track.	✓	–	–
↰ Jump Time	Set the starting playback time.	✓	–	–
▤ Advanced Options	Set Continue Play, Forward Rewind and Single Cycle.	✓	–	–
◄◄	Press **OK** to the previous file.	✓	–	–
►►	Press **OK** to the next file.	✓	–	–
Fast forward	Press ► to fast forward.	✓	✓	–
Reverse	Press ◄ to reverse.	✓	✓	–
◄	Go to the previous file.	–	–	✓
►	Go to the next file.	–	–	✓

List of file formats compatible with USB mode

■ Supported video format

File extension	Video decoder	Audio decoder	Subtitle

.avi	MPEG2 MP@HL
	MPEG4 SP@L0-3,ASP@L-05
	MPEG4 ASP(GMC 0,1p)
	H.264 HP@Up to Level 4.0
	H.264 MP@L 4.0
	H.265(HEVC) Main / Main 10 Profile @
	Up to Level 5 (4k2k 30 fps)
	MPEG4 ASP@Level 5
	H.264 HP@Up to Level 5.1
	H.264 HP@Up to Level 4.1
	H.264 (AVC) MP@L 4.1
		PCM
		AC3
		WMA,WMA Pro
		MP3
		AAC,support MPEG2 AAC(AAC-LC) & MPEG4
		AAC-LC
		HE-AAC,support MPEG4 HE-AAC v2
		MPEG Audio,support MPEG1 Layer 1/2
		Dolby Digital Plus
		Dolby Digital
		DTS
			External:
			  MicroDVD
			  SRT
			  SSA
			  ASS
			  Subview
			  Vobsub
			Inside:
			  Vobsub

.mkv	MPEG1 MP
	MPEG2 MP@HL
	MPEG-4 SP@HL 3.0 & MPEG-4 ASP@HL 4.0
	H.264 HP@Up to Level 5.1
	H.264 HP@Up to Level 4.1
	H.265(HEVC) High/Main 10 Profile @
	Up to Level 5 (4k2k 30 fps)
	MPEG1
	MPEG4 SP
	MPEG4 ASP @Level 5
	H.264 (AVC) MP@L 4.1
		AAC(AAC-LC)(H.264)
		AC3
		Dolby Digital Plus
		Dolby Digital
		DTS
			External:
			  MicroDVD
			  SRT
			  SSA
			  ASS
			  Subview
			  Vobsub
			Inside:
			  SSA
			  ASS
			  SRT
			  Vobsub

.ts	MPEG2 MP@HL H.264 High profile to level 5.1 H.264 Main profile to level 4.1 H.264 baseline profile to level 4.0 H.264 HP@Up to Level 4.1 H.264(AVC) MP@L4.1 H.264(AVC) BP@L3.1 H.265(HEVC) MP / Main 10 Profile @ Up to Level 5 (4k2k 30 fps)	MPEG Audio,support MPEG1 Layer 1/2 & MP3(MPEG2) LPCM Dolby Digital Plus Dolby Digital AC3 MP3 DTS AAC	-
.trp	MPEG2 MP@HL H.264 HP@Up to Level 4.1 H.264(AVC) MP@L4.1	MP3	-
.tp	MPEG2 MP@HL	MP3	-
.m2ts	MPEG2 MP@HL H.264(AVC) MP@L4.0 H.264(AVC) BP@L4.0 H.265(HEVC) MP / Main 10 Profile @ Up to Level 5 (4k2k 30 fps)	AC3 AAC Dolby Digital	-
.vob .mpeg	MPEG1 MPEG2 MP@HL	LPCM Dolby Digital Dolby Digital Plus	-
.dat	MPEG1 MPEG2	MP3	-
.mov	MPEG4 SP MPEG2 MP@HL MJEPG H.264 HP@Up to Level 5.1 H.264 HP@Up to Level 4.1	Dolby Digital Plus Dolby Digital	-

.flv	H.264 HP10 LV 4.0
	H.264 MP10 LV 4.0
	H.264 BP LV 4.0 (**2)
	H.264 HP@Up to Level 5.1
	H.264 HP@Up to Level 4.1
	MPEG4 SP
	MPEG4 ASP@Level 5
	H.264(AVC) MP@L4.1
		MPEG4 AAC-LC
		MPEG1 Layer 1/2
			External:
			  MicroDVD
			  SRT
			  SSA
			  ASS
			  Subview
			  Vobsub

Other useful features

File extension	Video decoder	Audio decoder	Subtitle
.mp4	MPEG2 MP@HL MPEG4 SP MPEG4 ASP@Level 5 MPEG-4 SP@HL 3.0 & MPEG-4 ASP@HL 4.0 H.264 HP@Up to Level 5.1 H.264 HP@Up to Level 4.1 H.264(AVC) MP@L4.0 H.264(AVC) BP@L4.0 H.265(HEVC) MP / Main 10 Profile @ Up to Level 5 (4k2k 30 fps)	MPEG1 Layer 1/2 Dolby Digital Plus Dolby Digital MPEG4 (AAC) AAC HE-AAC (AAC+) HE-AAC v2 (enhanced AAC+) MPEG4 (Enhanced Low Delay AAC)	External: MicroDVD SRT SSA ASS Subview Vobsub
.3gp	MPEG2 MP@HL MPEG-4 SP@HL 3.0 & MPEG-4 ASP@HL 5.0 H.264 HP@Up to Level 5.1 H.264 HP@Up to Level 4.1 H.264(AVC) MP@L4.0 H.264(AVC) BP@L4.0 H.263	MPEG1 Layer 1/2 AMR_NB AAC	External: MicroDVD SRT SSA ASS Subview Vobsub
.rmvb	Real Video 8, 9, 10	-	-
.webm	VP8	-	-
DTMB	AVS:Full-HD 60P decoderJizhun profile @Level 6.2 (supports 4:2:0 format),Full-HD 60P decoder MPEG2 MP@HL H.264 HP@Up to Level 5.1 H.264(AVC) MP@L4.0 H.264(AVC) BP@L4.0	Dolby Digital Plus Dolby Digital MPEG1 Layer 1/2 (MPEG2) MPEG2 (AAC-LC) (H.264) & MPEG4 AAC-LC (H.264) DRA(decode)	-

■ Supported audio format

File extension	Audio decoder
.mp3	MPEG1 Layer 1/2/3
.wma	WMA WMAPro, WMA V9
.flac	flac
.ogg	VORBIS
.wav	WAVE, PCM
.mka	AC3
.aac	AAC
.m4a	AAC
.mid	MIDI

■ Supported picture format

File extension	Picture decoder
JPEG	progressive 4000*4000 baseline 8000*8000
PNG	4096*5760
GIF	8000*8000
BMP	8000*8000

🖉 **NOTE**

- USB 1.1 devices may not be played properly.
- Operation using USB hubs is not guaranteed.
- Video in Motion JPEG format with a resolution higher than 1280x720 may not be played back correctly.
- Some file formats in the above list may not be played back correctly (including images, sounds, subtitles, etc.).
- Depending on the bit rate, some files may not be played back.
- The TV supports DTS encoded video files instead of DTS surround sound formats.
- Some subtitles may not be displayed correctly and this may affect the TV operation.
- Only show the compatible file format.
- According to different files, the displayed playback time may be sightly different from the actual .
- The length of time information may not be displayed correctly in some file.

Appendix

Troubleshooting

The problems described below are not always caused by malfunctions. Check the TV again before having the TV serviced.

Problem	Possible solution
• No power.	• Is the AC cord disconnected? (See page 11.) • Has the power been turned on? (See page 15.) • When the power switch does not work, remove the power plug and insert it again, and press ⏻ (**POWER**) on the TV after waiting more than five seconds.
• Unit cannot be operated.	• External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the unit after first turning the power off or unplugging the AC cord and re-plugging it in after 1 or 2 minutes.
• Remote control unit does not operate.	• Are batteries inserted with polarity ($+$, $-$) aligned? (See page 14.) • Are batteries worn out? (Replace with new batteries.) • Are you using it under strong or fluoresent lighting? • Is a flour resent light shinning on the remote control sensor?
• Picture is cut off.	• Are screen mode adjustments such as picture size made correctly? (See page 18 .)
• Strange colour, light colour, or dark, or colour misalignment.	• Adjust the picture tint. (See page 18.) • Is the room too bright? The picture may look dark in a room that is too bright. • Check the colour system setting. (See page 20.)
• Power is suddenly turned off.	• The unit's internal temperature has increased. Remove any objects blocking the vent or clean. • Is the sleep timer, no signal power off ? (See page 17.)
• No picture.	• Is the connection to external equipment correct? (See pages 12, 13 and 24.) • Is the correct input selected? (See pages 23.) • Is the picture adjustment correct? (See page 18.) • Is the antenna connected properly? (See page 11.) • Check the colour system setting. (See page 20.)
• No sound.	• Is the volume too low? (See page 10.) • Check the sound system setting. (See page 20.)
• The TV sometimes makes a cracking noise.	• This is not a malfunction. This happens when the cabinet slightly expands and contracts according to changes in temperature. This does not affect the TV's performance.
• Cannot select the desired channel.	• Switch between Digital TV and Analogue TV modes. (See page 23.)
• Cannot connect to the Network	• Is the LAN cable connected correct. (See pages 21 and 22.) • Check the "LAN setting".

Cautions regarding use in high and low temperature environments

• When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
• Do not leave the unit in a hot or cold location. Also, do not leave the unit in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
Storage temperature: $-20°C$ to $+60°C$.

Appendix

Specifications

Item		Model	LC-50S4H	LC-65S4H
Resolution			8,294,400 pixels (3840(H) x 2160(V))	
Video colour system			PAL / SECAM / NTSC 3.58 / NTSC 4.43 / PAL 60	
TV function	TV-Standard	Analogue	PAL:BG, DK, I SECAM:BG, DK NTSC:MN	
		Digital	DTMB	
	Receiving channel	VHF/UHF	44.25MHz-863.25 MHz	
		CATV	S1-S41ch (including Hyperband)	
	Digital terrestrial broadcast		52.50MHz-866.00MHz	
	STEREO/BILINGUAL		NICAM: BG, I, DK ; A2 stereo: BG	
TV tuning system	Analogue		Auto preset 99 channel	
	Digital		Auto preset 999 channel	
Audio amplifier			10W×2 (L / R)	
Speaker			(100 mm x 45mm) x 2	(118 mm x 33mm) x 2
Terminals	Side	USB1	USB 2.0	
		SD	SD/SDHC	
		USB2	USB 3.0	
		HDMI 1	HDMI (HDMI input) (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz, 1080p/50Hz, 1080p/60Hz, 1080p/24Hz, 2160p/30Hz)	
		HDMI 2	HDMI (HDMI input) (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz, 1080p/50Hz, 1080p/60Hz, 1080p/24Hz, 2160p/30Hz)	
		ANTENNA	UHF/VHF 75 Ω Din type	
		HDMI 3	HDMI (HDMI input) (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz, 1080p/50Hz, 1080p/60Hz, 1080p/24Hz, 2160p/30Hz, 2160p/50Hz, 2160p/60Hz)	
	Rear	Digital Audio Output	Optical digital audio output	
		Special service terminal	Only for service	
		COMPONENT/AV INPUT	COMPONENT in (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz), AUDIO in ; VIDEO in, AUDIO in	
		LAN (ETHERNET 10/100)	Network connector	
OSD language			English/Simplified Chinese/Traditional Chinese	
Power requirement			AC 110-240 V, 50Hz	
Power consumption (Standby)			150W (0.5W)	225W (0.5W)
Weight	Without stand		19.5 kg	35.5 kg
	With stand		20.5 kg	38.0 kg
Operating temperature			0 °C to + 45 °C	

- As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice.

Appendix
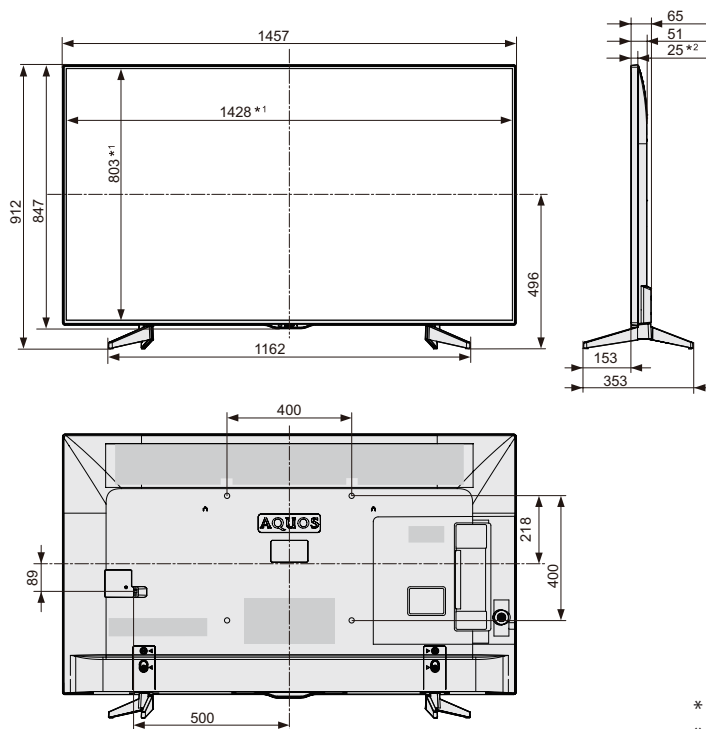
Dimensional drawings

■ **LC-50S4H**   Unit: mm
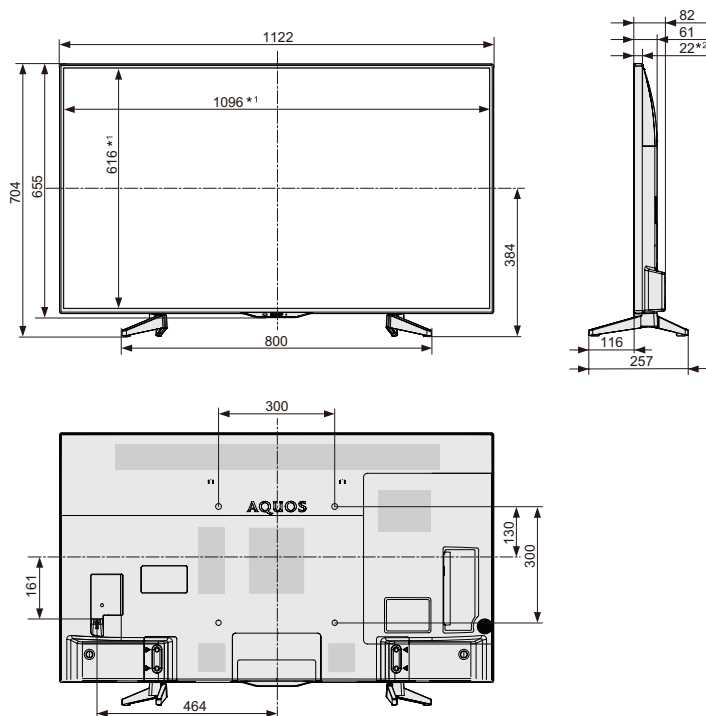
■ **LC-65S4H**

*1 Active area
*2 Thinnest part