

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.

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Precautions for daily use

Observe the following items

Maintenance of the cabinet

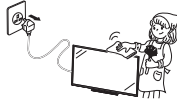
- When cleaning the cabinet, use a soft cloth (made of cotton, floss, etc.) to clean gently.
Do not use a dry or damp rag mixed with chemicals, as this could cause the ingredients of the cabinet body to deteriorate or crack.
- Be careful not to use an abrasive cloth for cleaning or clean with excessive 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

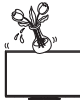
- **Cleaning** — Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use alcohol cleaners, spray cleaners or chemical cloth when cleaning because these types of materials may damage the product.



- **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.



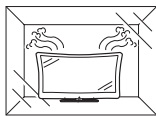
- **Stand** — Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. 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.



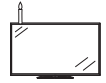
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is broken, be careful not to be injured by broken glass.



- **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.



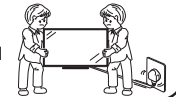
- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.



- 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.



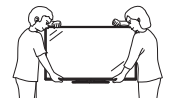
- Unplug the power cord before you move the TV set. If not unplugged beforehand, the power cord may become damaged and cause electric shock.



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.

Trademarks

- Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio and the double-D symbol are trademarks of Dolby Laboratories.
- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.
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- The Wi-Fi CERTIFIED Logo is a certification mark of the Wi-Fi Alliance.
- microSD Logo is a trademark of SD-3C, LLC.
- MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.





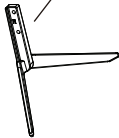

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- The operation manual has been collated and checked strictly. Due to factors such as software upgrading, SHARP can not guarantee that the actual operation keeps pace with the manual description.

Accessories

Supplied accessories

Make sure the following accessories are provided with the product.

Remote control unit	“AAA” size battery (×2)	Operation manual
 <p>Used with batteries inserted. Page 10</p>	 <p>Page 14</p>	
Stand unit		
 <p>“L”Stand Unit</p>	 <p>“R”Stand Unit</p>	 <p>Screws (×4)</p>
<p>Stand Unit (×2)</p> <p>Page 7</p>		

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.

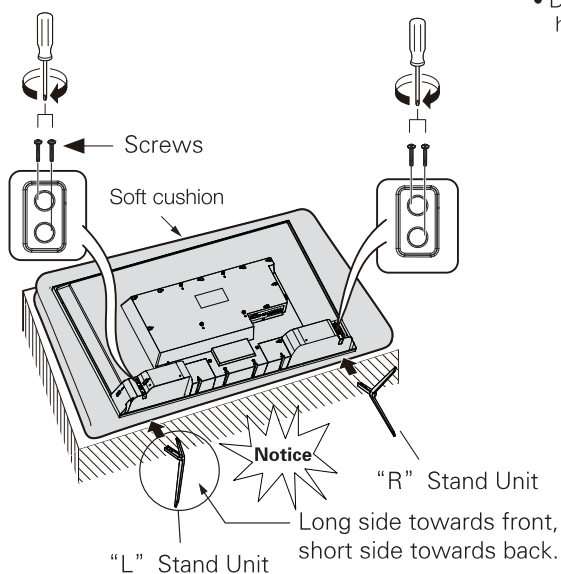
CAUTION

- **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

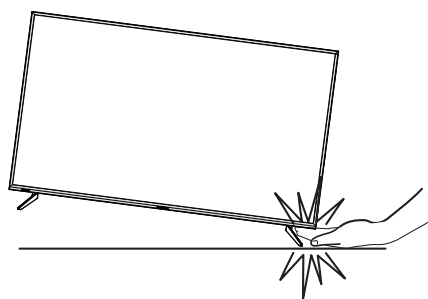
Place the TV on a flat surface with soft cushion on top of it. Insert the stand unit into the slot on the bottom of the TV while holding the stand unit to avoid it falling over.

Insert the four screws into the four holes on the back of the TV, and tighten them.



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.



Preparation

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

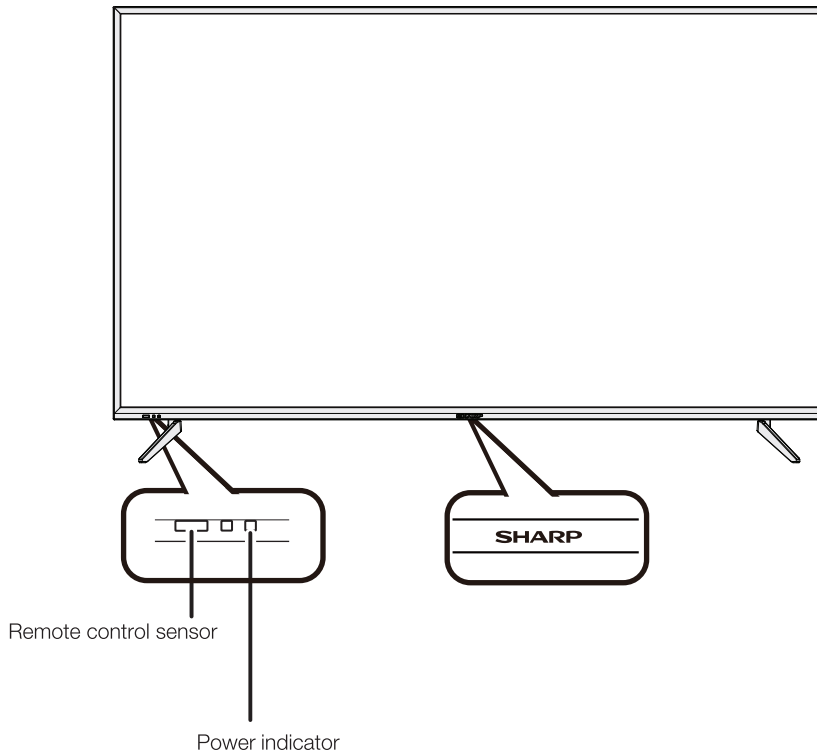
- **This TV should be mounted on a wall only with a wall mount bracket recommended by SHARP. The use of other wall mount brackets may result in an unstable installation and may cause serious injuries.**
- **Installing the TV requires special skills that should only be performed by qualified service personnel. 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

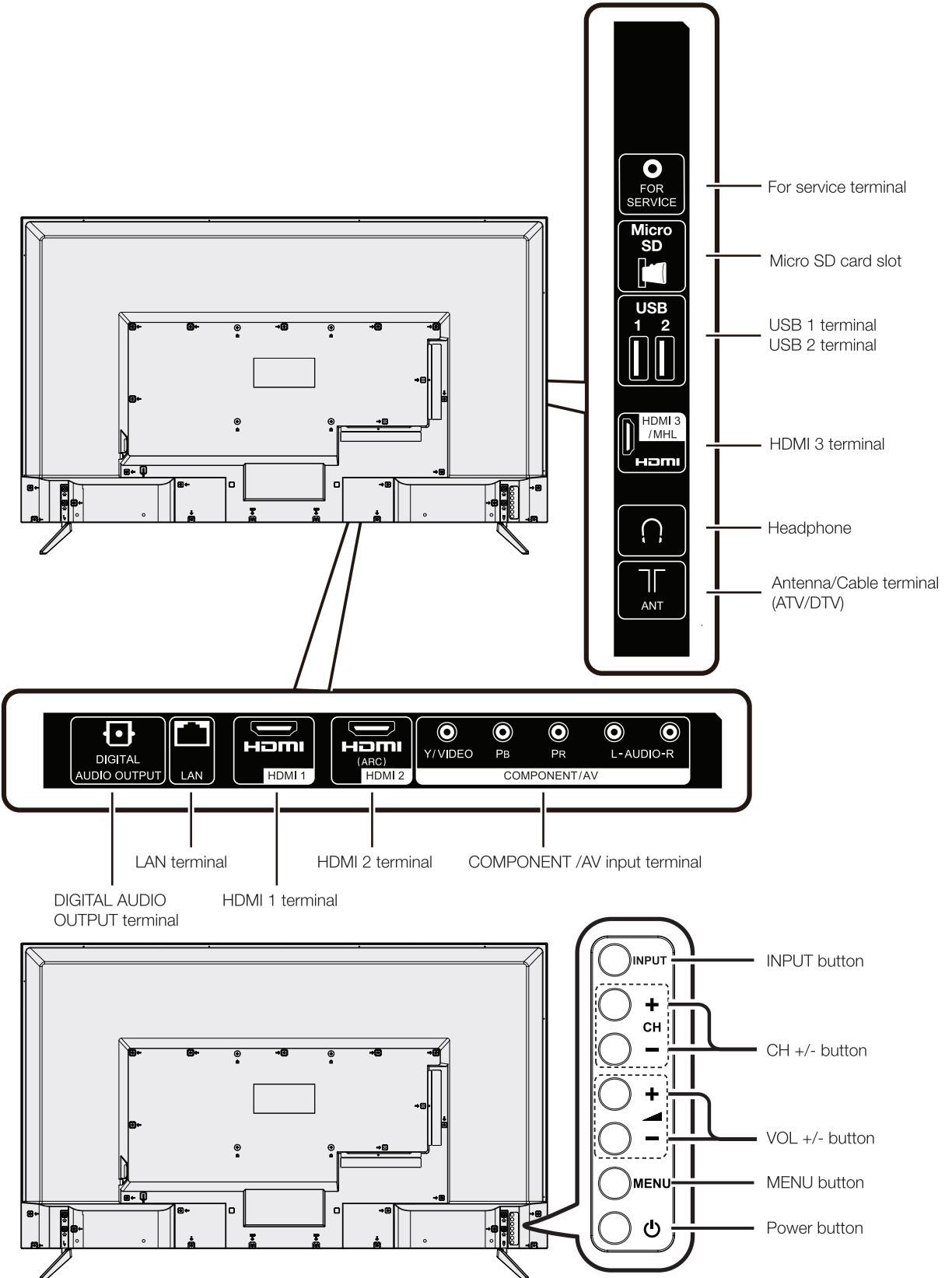
TV (Front)



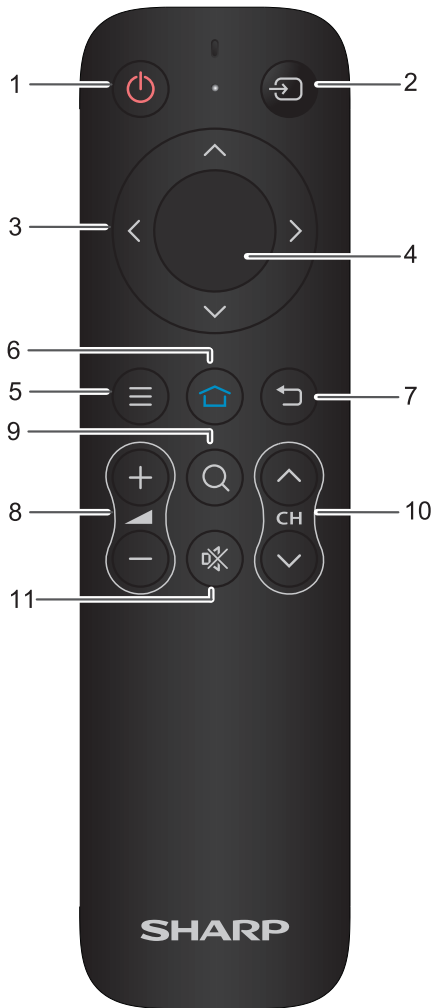
- The illustrations and on-screen displays in this operation manual are for explanation purposes and may vary slightly from the actual operations.
- The illustrations used throughout this operation manual are based on LC-50UE45H.

Preparation

TV (Rear)



Remote control unit



- 1** **(POWER (Standby/On))**
To switch the power on and off.
- 2** **(SOURCE)**
Selects input source.
- 3** **^/∇/◀/▶ (Cursor)**
Select a desired item on the setting screen.
- 4** **OK**
Execute a command.
- 5** **(MENU)**
Display the menu list.
- 6** **(HOME)**
Display the smart home.
- 7** **(RETURN)**
Return to the previous menu screen.
- 8** **VOL +/-**
Set the volume.
- 9** **(BROWSER)**
Start browser.
- 10** **CH ^/∇**
TV input mode: Select the channel.
- 11** **(MUTE)**
Mutes or restores sound.

Preparation

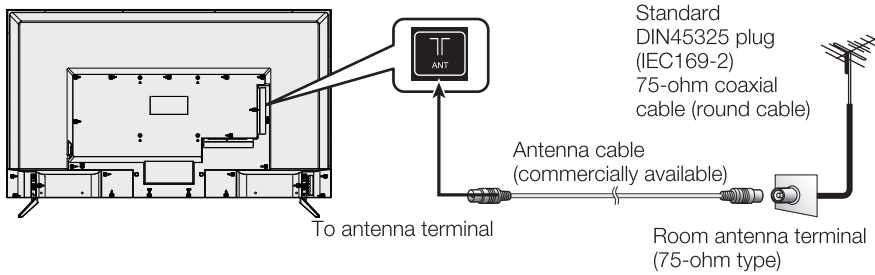
Before turning on the power

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

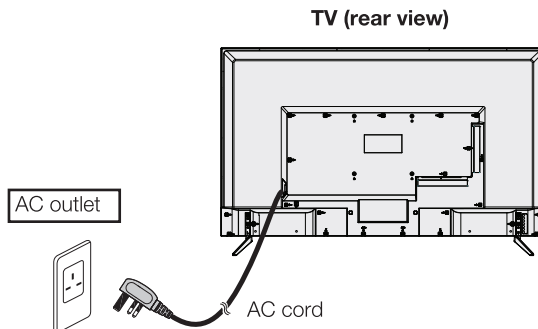
To enjoy a clearer picture, use an outdoor antenna. The following is a brief explanation of the types of connections that are used for coaxial cable.



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.



- 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.

CAUTION

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

Preparation

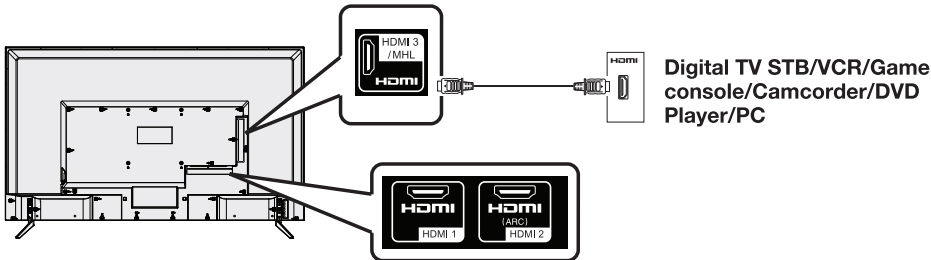
Connecting external devices

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 **↻** to the Input source interface, 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.

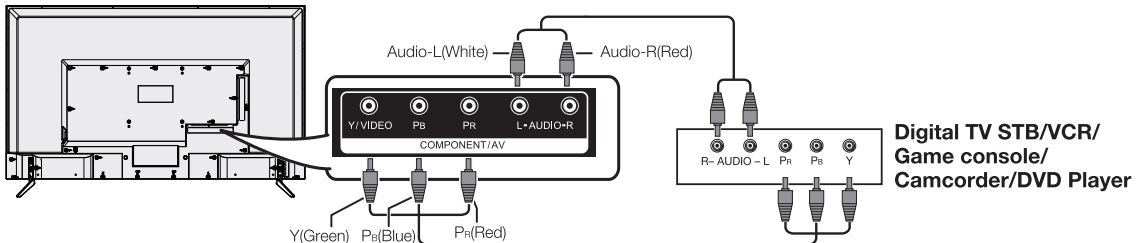
When using HDMI cable (commercially available)



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)

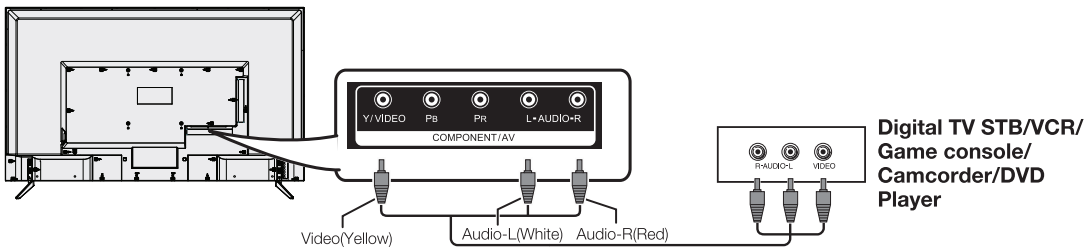


- * The component and AV input share the same terminal.

NOTE

- Insert the terminals by colour.

When using AV cable* (commercially available)



- * The component and AV input share the same terminal.

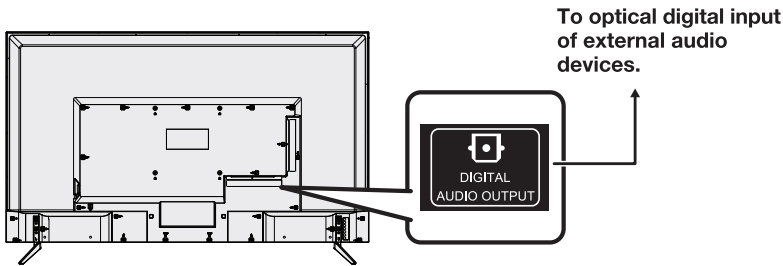
NOTE

- Insert the terminals by colour.

Preparation

Using digital audio output

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

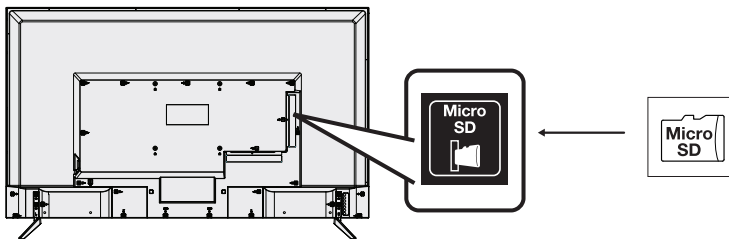


NOTE

- 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 Micro SD memory card (commercially available)

It provides access to Apps ,video,music,and other files in Micro SD memory card. Insert a Micro SD memory card that stores your files into the Micro 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 Micro SD slot supports Micro SD memory cards. However some memory cards may not be supported.
- This product supports memory cards with a maximum storage of 128 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

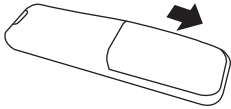
See page 21 to 22.

Preparation

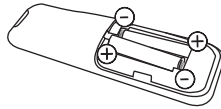
Inserting the batteries

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.

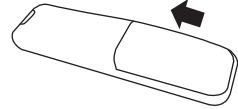
1 Open the battery cover.



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

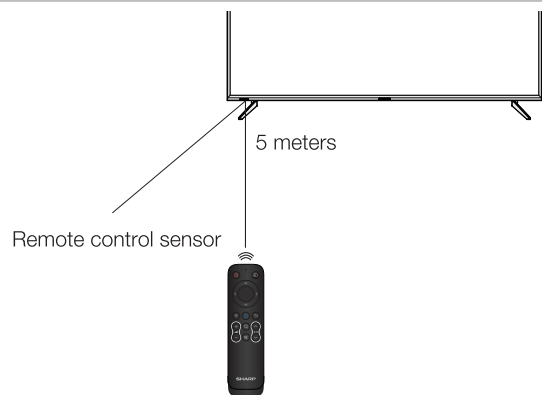
Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.

- 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

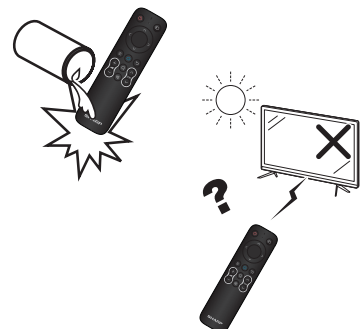
Use the remote control unit by pointing it towards the remote sensor window.

Objects between the remote control unit and sensor window may prevent proper operation.



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.



Preparation

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

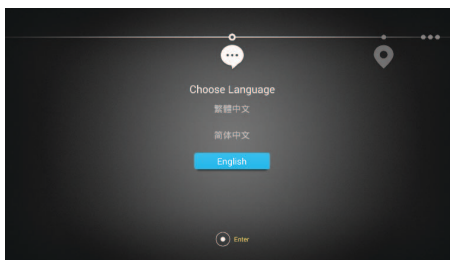
When the TV powers on for the first time after purchase, the setting wizard appears. Follow the menus and make the necessary settings one after another.

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 “English”.

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” will be the default value for the “AV mode” setting.

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.

Please see page 21 to 22.

Watching TV

When the initial setup has completed, you can start watching TV.

MENU

Wide Mode

- 1 Press **≡ (MENU)** to display the menu screen in full-screen TV programs.
- 2 Press **◀/▶** to select "Wide Mode" and then press **OK**.

Selected item	Description
Default	For the default pictures
16:9 (only HDMI) (Full)	For 16:9 squeeze pictures
4:3 (only ATV/DTV/AV)	For 4:3 standard pictures. A side bar appears on each side
Panorama Mode (only ATV/DTV/AV)	In this mode, the picture is progressively stretched toward each side of the screen
Zoom	A thin side bar may appear on each side with some programmes
Movie (Cinema)	Bars may appear on the top and bottom with some programmes

Picture Mode

- 1 Press **≡ (MENU)** to display the menu screen in full-screen TV programs.
- 2 Press **◀/▶** to select "Picture Mode", and then press **OK**.
- 3 Press **◀/▶** to select "Standard", "Cinema", "User", "Dynamic", "GAME", and then press **OK**.

NOTE

- Game is only for HDMI/AV/Component.

Audio Mode

- 1 Press **≡ (MENU)** to display the menu screen in full-screen TV programs.
- 2 Press **◀/▶** to select "Audio Mode", and then press **OK**.
- 3 Press **◀/▶** to select "Standard", "Movie", "GAME", and then press **OK**.

MPX(ATV)/Audio Language(DTV)

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(ATV)/Audio language(DTV)".
- 3 Press **OK** to select the desired audio language .

Subtitle

Setup preferred subtitle language if the subtitle languages are available.

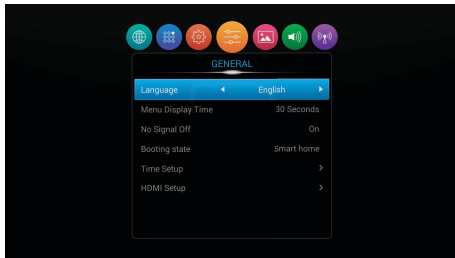
- 1 Press **≡ (MENU)** to display the menu screen in full-screen TV programs.
- 2 Press **◀/▶** to select "Subtitle" and then press **OK**.
- 3 Press **▲/▼** to select the desired subtitle language.

Watching TV

Settings

According to your needs to set the options table.

General



Language

You can select a language from the menu.

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

Menu Display Time

[5 Seconds/ 10 Seconds/ 15 Seconds/ 20 Seconds/ 30 Seconds/ Always]

Set duration to disappear the main menu and some TV OSD.

No signal 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.

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.

Time Setup

Automatic data and time

Select "Automatic sync TV data and time" / "Automatic sync Net data and time" / "off".

Use 24-hour format

Select On/Off.

Date

To show current Date.

Time

To show current Time.

Power Off Timer

To set TV auto power off function, if set on the switch, TV will automatically power off once when reaching the power off time which user adjusted.

Power On Timer

To set TV auto power on function, if set on the switch, TV will automatically power on once when reaching the power on time which user adjusted.

Sleep Timer

[Off/ 10 Minutes/ 20 Minutes/30 Minutes/ 60 Minutes/ 90 Minutes/ 120 Minutes/ 180 Minutes/ 240 Minutes]

Set the sleep counter. When reach the setting time, TV will enter standby mode automatically.

HDMI Setup

Smart Link

[On/Off]

To set HDMI CEC enable/disable.

Audio Return Channel(only HDMI2 support ARC function)

[Off/On]

Output TV sound to the amplifiers which has ARC function (connect monitor and amplifier with HDMI cable)

Auto Power

[Off/On]

To switch HDMI CEC auto power function.

Device List(Dialog)

To show linked HDMI device.

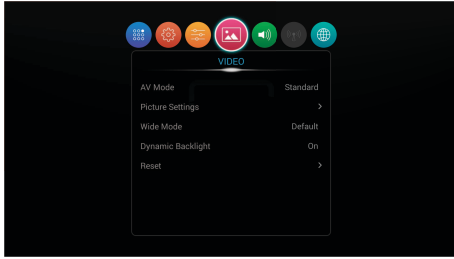
UHD Select

To select "4K/30Hz" / "4K/60Hz".

Watching TV

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
DYNAMIC	For a clear-cut image emphasizing high contrast for sports viewing.
STANDARD	For a highly defined image in a normally bright room.
CINEMA	For viewing the movies.
GAME	Lowers image brightness for easier viewing. (HDMI , Component , AV input available only)
USER	Allows the user to customise settings as desired. You can set the mode for each input source.

NOTE

- You can select a different “AV mode” item for each input mode.

Picture Settings

You can adjust the picture to your preference.

Backlight / Brightness / Contrast / Colour / Tint / Sharpness

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

Colour temp. (Colour temperature)

Adjusts the colour temperature to give the best white image.

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

White Balance

Adjusts the gain of color temperature.

You can select "Red Gain", "Green Gain", "Blue Gain" or "White Balance Reset".

Noise Reduction

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

MPEG Noise Reduction

It can reduce the mosaic and the latticed noise produced by MPEG compression. You can select "Off", "Low", "Middle", "Strong".

Active Contrast

Automatically adjust the image contrast according to the scene APL(Average Brightness) or Histogram.

[Off / On] Turn On/Off this function.

Reset

Restore video setting to the default value.

Wide Mode

Change Picture sizes. Please see pages 16.

Dynamic Backlight

Automatically adjust the image contrast according to the scene APL(Average Brightness) or Histogram.

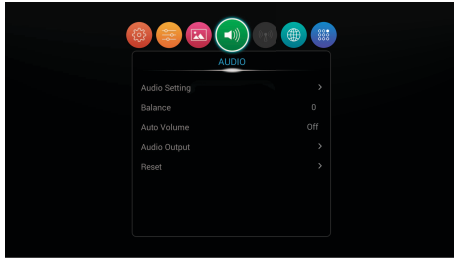
Reset

Reset all picture adjustment items to the factory preset.

Watching TV

Audio

Set the audio as you desired .



Audio Setting

This function allows you to select your favourite audio system.

AV mode

You can select Standard / Movie / Game.

Bass/Treble

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

Sound Surround

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

Reset

Restore the Sound Settings of sound mode to default value.

Balance

[-20~20]

User can control the Left / Right speaker output level.

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.

Audio Output

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

Speaker

To control TV speaker output enable or disable.

SPDIF Type

[Off / PCM / Dolby Digital]

To control SPDIF digital data output type.

SPDIF Delay

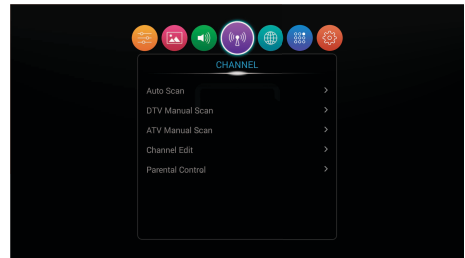
To control the SPDIF output delay time, user can adjust it to let the video content and sound synchronized.

Reset

Reset all audio adjustment items to the factory preset values.

Channel

Set the channel as you desired .



Auto Scan

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

You can select DTV / ATV / DTV+ATV.

DTV Manual Scan

You can set some DTV channel items manually.

Signal info

Show the "Channel No.", "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.

ATV Manual Scan

You can set some ATV channel items manually.

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. (AUTO, PAL, NTSC_M, NTSC4.43, SECAM, PAL_M, PAL_N, PAL_60)
Sound system	Select the optimum sound system (Broadcasting system) to receive. (BG, DK, I, L, M)
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.

Watching TV

Channel 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 "Settings", and then press **OK**. Press **◀/▶** to select "CHANNEL", and press **▲/▼** to select "Channel Edit", then press **OK** to display the channel list.
- 3 Press **▲/▼** to select the desired channel, and then press **OK**.

Enter Channel

Go to the selected channel.

Move

Channel positions can be moved freely.

- 1 Press **▲/▼** to select "Move", 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 set 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 Cancel" and press **OK** again to cancel the skip.

Delete

Channels can be erased individually.

Press **▲/▼** to select "Delete", and then press **OK** to erase the selected channel.

Parental Control

Before enter Parental Control, User need to enter password, the default password is "0000".

NOTE

- Press superkey "3001" in case of forgetting the password.

Lock System

[On / Off]

To switch lock system function, if turn off the switch, [program Block] and will be gray out.

Program Block

Press **▲/▼** select channel, press **OK** to Lock channel. press **OK** to Unlock channel.

NOTE

- This function is active in DTV and ATV.
- This function is active when [Lock System] is on.

Change Password

User can modify the password.

Clear All Lock

Clear all parental control setting.

Network

Please see pages 21 to 22.

Apps

Please see pages 23.

System

You can view and set the info about the system.

System Info

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

Network Upgrade

To do the FW upgrade by network(OTA).

Local Upgrade

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 Upgrade 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.

Initial Setup Wizard

Start setup wizard, it can set language, Home / Store mode, scan channel.

Settings Reset

To restore the UI and TV system setting to default value.

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.

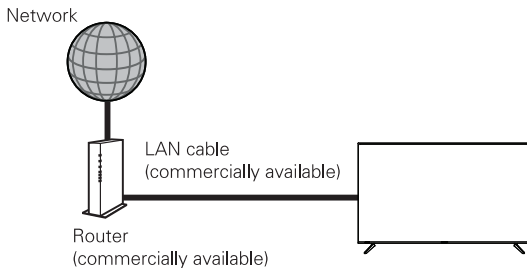
NOTE

- 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.

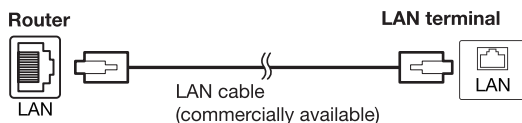
Wired installation

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

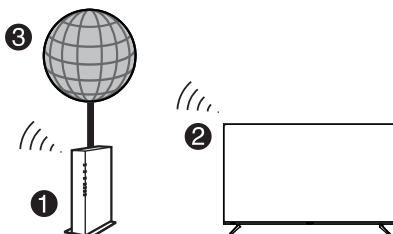


How to connect



Wireless installation

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



- 1 Wireless LAN router/access point
- 2 TV
- 3 Network

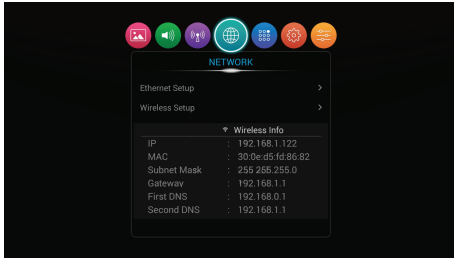
NOTE

- 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 function

NETWORK

Select "Setting" in the menu, and then press **OK**. Press ◀/▶ to select "Network", and show the network details.



Ethernet Setup

You can select "Ethernet" to connect the network.

■ DHCP

Hosts for which fixed IP addresses have been specified can boot using DHCP.

Hosts for which no fixed address is specified can only be booted with DHCP.

■ Static

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

■ Update Save

Fixed IP addresses can also be specified for hosts. You can setup IP address, Subnet Mask, Gateway, First DNS, Second DNS following the on-screen instructions.

Wireless Setup

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

When adjust "Wi-Fi" to "On", it displays the nearby 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.

■ Refresh

Search the wireless network.

■ 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.

■ WPS PBC

By pushing a button on the wireless LAN router / access point and the machine, you can setup the wireless network and security settings.

■ WPS Pin Entry

The PIN (Personal Identification Number) Method is one of the connection methods developed by the Wi-Fi Alliance.

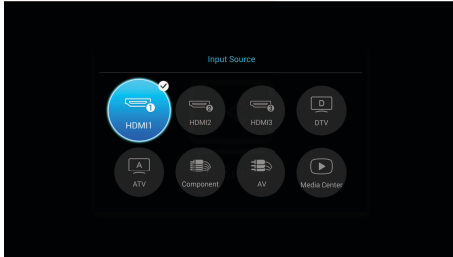
By inputting a PIN which is created by an access point to the Registrar (a device that manages the wireless LAN), [you can setup the wireless network and security settings.

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.

TV

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

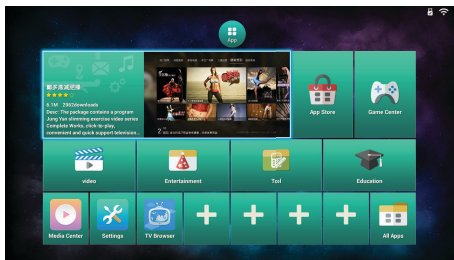


Smart home

Smart home will go to App screens. It's convenient for you to operate with intuitive interface.
You can press **OK** button to get into specific content.

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". 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.

Micro SD card

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.

Manage Apps

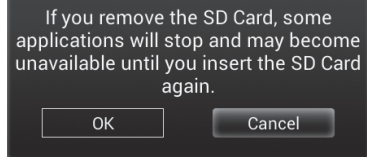
It will display applications list that have been installed. Operations such as "Force stop", "Uninstall", "Clear Data" or "Move to SD card/Move to internal" can be used to an application.

Clean Memory

User can clean all memory or refresh.

Remove Micro SD card

Remove Micro SD card after you have safely unmount 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.)

Erase Micro SD card

Formatting Micro SD card.

NOTE

- If you format SD card, the content stored in the Micro SD card will be deleted completely and the content is unrecoverable. Please operate it carefully.

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**.

Other useful features

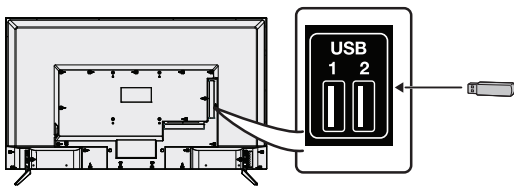
You can connect a USB memory device or a USB hard disk drive (HDD) to the TV to enjoy viewing pictures, listening to the audio, and watching videos.

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.

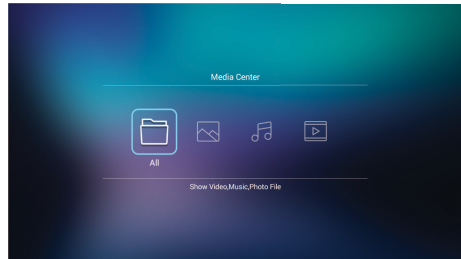


- The USB 1 and USB 2 terminals cannot be connected with USB hard disk drives at the same time.
- When connecting a USB hard disk drive, be sure to use a hard disk drive with an AC adapter.
- Do not remove the memory device from the TV while transferring files.
- Do not insert and remove a USB memory 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



- 1 Press **HOME** to display the smart home, select "Media Center" and then press **OK**.
- 2 Press **▲/▼/◀/▶** to select the desired folder, such as "All", "Photo", "Music", "Video".
- 3 Press **▲/▼/◀/▶** to select the device or disk drive you want, 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.

Other useful features

Buttons for USB media operation

Button/menu	Description	Video mode	Music mode	Photo mode
▶/	Play/Pause.	✓	✓	–
≡	Loop. Each time you press ◀/▶, the mode will switch from Cycle, Single, Random, Lyric show switch on/off and ECO set.	–	✓	–
▲/▼	Playlist Select a file from the playlist to start playback.	✓	✓	–
▲/▼	Rotate the picture Press ▲/▼ and OK to rotate the image 90 degrees anticlockwise, or clockwise. Press  to exit this mode.	–	–	✓
≡	Set the Time Interval and Animation of the slide.	–	–	✓
≡	Set subtitle Auto / Inner/ External subtitle and Breakpoint play.	✓	–	–
Fast forward	Press ▶ to fast forward.	✓	–	–
Reverse	Press ◀ to reverse.	✓	–	–
◀	Go to the previous file.	–	✓	✓
▶	Go to the next file.	–	✓	✓

Other useful features

List of file formats compatible with USB mode

Supported video format

Video decoder	Resolution	Bit Rate	Profile	Container
MPEG1/2	1080P@30fps	40Mbps	MP@HL	MPEG program stream (.DAT, .VOB, .MPG, .MPEG) MPEG transport stream (.ts, .trp, .tp) MP4 (.mp4, .mov) 3GPP (.3gpp, .3gp) AVI (.avi) MKV (.mkv)
MPEG4	1080P@30fps	40Mbps	. Simple Profile . Advanced Simple Profile@Level 5 . GMC is not supported	MP4 (.mp4, .mov) 3GPP (.3gpp, .3gp) AVI (.avi) MKV (.mkv)
H.264	1080Px2@30fps 1080P@60fps	62.5Mbps	. Main Profile . High Profile @Level 4.2	FLV (.flv) MP4 (.mp4, .mov) 3GPP (.3gpp, .3gp) MPEG transport stream (.ts, .trp, .tp) ASF (.asf) WMV (.wmv) AVI (.avi) MKV (.mkv)
HEVC/H.265	4K2K@60fps	100Mbps	Main/Main10 Profile, High Tier @Level 5.1	MP4 (.mp4, .mov) 3GPP (.3gpp, .3gp) MPEG transport stream (.ts, .trp, .tp) MKV (.mkv)
MVC	1080P@30fps	62.5Mbps		MPEG transport stream (.ts, .trp, .tp)
VC1	1080P@30fps	40Mbps	. Advanced Profile @Level 3 . Simple Profile . Main Profile	MPEG transport stream (.ts, .trp, .tp) ASF (.asf) WMV (.wmv) AVI (.avi) MKV (.mkv)
Motion JPEG	1280x720@30fps	40Mbps		AVI (.avi) 3GPP (.3gpp, .3gp) MP4 (.mp4, .mov) MKV (.mkv)
VP8	1920x1080@30fps	20Mbps		MKV (.mkv) WebM (.webm)
RV30/RV40	1080P@60fps	40Mbps		RM (.rm, .rmvb) MKV (.mkv)
XviD	1080P@30fps	40Mbps		MP4 (.mp4, .mov) AVI (.avi) MKV (.mkv)

Other useful features

Supported picture format

File extension	Photo decoder	Resolution	Remark
JPEG	Base-line	1920x1080	The limitation of max resolution depends on DRAM size(up to 15360x8640)
	Progressive	1024x768	The limitation of max resolution depends on DRAM size(up to 7000x7000)
PNG	Non-interlace	4000x4000	The limitation of max resolution depends on DRAM size(up to 15360x8640)
	Interlace	1200x800	The limitation of max resolution depends on DRAM size(up to 15360x8640)
BMP		15360x8640	The limitation of max resolution depends on DRAM size(up to 15360x8640)

Supported audio format

Audio decoder	File extension
MPEG1/2 Layer1	*.mp3 *.avi *.asf *.mka *.mkv *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.flv *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG *.wav
MPEG1/2 Layer2	*.mp3 *.avi *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.flv *.asf *.mka *.mkv *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG *.wav
MPEG1/2 Layer3	*.mp3 *.avi *.asf *.mka *.mkv *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG *.flv *.wav
LPCM	*.wav *.avi *.mkv, *.mka *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG

Audio decoder	File extension
AAC-LC	*.aac *.avi *.mkv *.wav *.mka *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG *.flv *.rm, *.rmvb, *.ra
AC3	*.ac3 *.avi *.mkv *.mka *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG
E-AC3	*.ec3 *.3gpp, *.3gp *.mp4, *.mov, *.m4a *.ts, *.trp, *.tp *.DAT, *.VOB, *.MPG, *.MPEG

USB&SD card Specification

	Micro SD card	USB	R/W
NTFS	128GB	No limited	Read only, (write need licence)
FAT32	32GB	No limited	Read and Write
FAT16	2GB	2GB	Read and Write

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.
- 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 slightly 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
<ul style="list-style-type: none">No power.	<ul style="list-style-type: none">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.
<ul style="list-style-type: none">Unit cannot be operated.	<ul style="list-style-type: none">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.
<ul style="list-style-type: none">Remote control unit does not operate.	<ul style="list-style-type: none">Are batteries inserted with polarity (+, -) aligned? (See page 14.)Are batteries worn out? (Replace with new batteries.)Are you using it under strong or fluorescent lighting?Is a floor reset light shining on the remote control sensor?
<ul style="list-style-type: none">Picture is cut off.	<ul style="list-style-type: none">Are screen mode adjustments such as picture size made correctly? (See page 16.)
<ul style="list-style-type: none">Strange colour, light colour, or dark, or colour misalignment.	<ul style="list-style-type: none">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.)
<ul style="list-style-type: none">Power is suddenly turned off.	<ul style="list-style-type: none">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.)
<ul style="list-style-type: none">No picture.	<ul style="list-style-type: none">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.)
<ul style="list-style-type: none">No sound.	<ul style="list-style-type: none">Is the volume too low? (See page 10.)Check the sound system setting. (See page 20.)
<ul style="list-style-type: none">The TV sometimes makes a cracking noise.	<ul style="list-style-type: none">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.
<ul style="list-style-type: none">Cannot select the desired channel.	<ul style="list-style-type: none">Switch between Digital TV and Analogue TV modes. (See page 23.)
<ul style="list-style-type: none">Cannot connect to the Network	<ul style="list-style-type: none">Is the LAN cable connected correct. (See pages 21 and 22.)Check the "LAN setting".

Cautions regarding use in high and low temperature environments

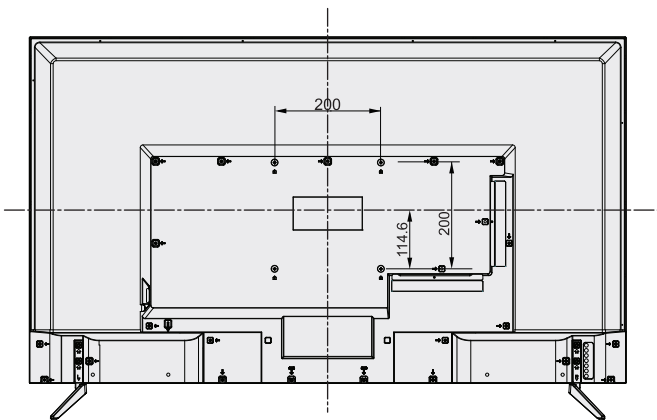
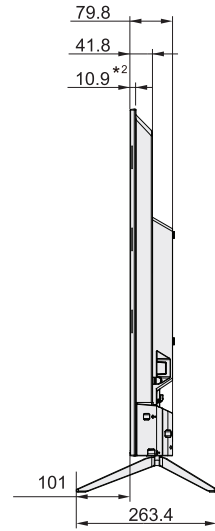
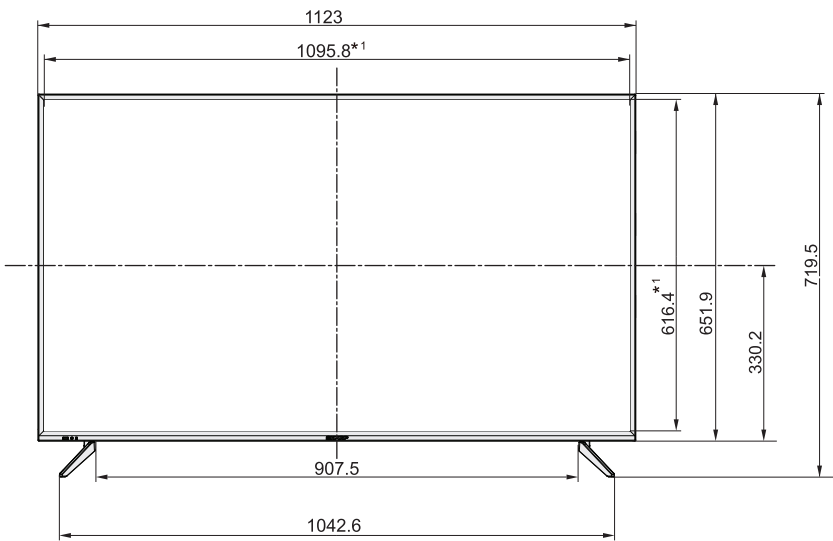
- When the unit is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the unit will recover when the temperature returns to normal.
- Do not leave the unit in a hot or cold location. Also, do not leave the unit 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.

Specifications

Item		Model	LC-50UE45H	
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			(120 mm x 33.6 mm) x 2	
Terminals	Side	Special service terminal	Only for service	
		Micro SD	Micro SD (TF) card	
		USB1	USB 2.0	
		USB2	USB 2.0	
		HDMI 3 / MHL	HDMI (HDMI input) (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz, 1080p/50Hz, 1080p/60Hz, 1080p/24Hz, 1080p/25Hz, 1080p/30Hz, 2160p/24Hz, 2160p/25Hz, 2160p/30Hz, 2160p/50Hz, 2160p/60Hz)	
		Headphone	Diameter 3.5 mm jack	
		ANTENNA	UHF/VHF 75 Ω Din type	
	Rear	Digital Audio Output		Optical digital audio output
		LAN (ETHERNET 10/100)		Network connector
		HDMI 1		HDMI (HDMI input) (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz, 1080p/50Hz, 1080p/60Hz, 1080p/24Hz, 1080p/25Hz, 1080p/30Hz, 2160p/24Hz, 2160p/25Hz, 2160p/30Hz, 2160p/50Hz, 2160p/60Hz)
		HDMI 2 (ARC)		HDMI (HDMI input) (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz, 1080p/50Hz, 1080p/60Hz, 1080p/24Hz, 1080p/25Hz, 1080p/30Hz, 2160p/24Hz, 2160p/25Hz, 2160p/30Hz, 2160p/50Hz, 2160p/60Hz)
		COMPONENT/AV INPUT		COMPONENT in (480i, 576i, 480p, 576p, 720p/50Hz, 720p/60Hz, 1080i/50Hz, 1080i/60Hz) AUDIO in ; VIDEO in, AUDIO in
		OSD language		English/Simplified Chinese/Traditional Chinese
		Power requirement		AC 110-240 V, 50Hz
Power consumption (Standby)		120W (0.50W)		
Weight	Without stand		11.6 kg	
	With stand		11.8 kg	
Operating temperature			0 °C to + 45 °C	
<ul style="list-style-type: none"> As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. 				

Dimensional drawings

Unit: mm



*1 Active area
*2 Thinnest part