

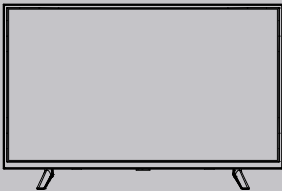
# Panasonic®

Model No.:

TH-32MS680DX TH-43MS680DX  
TH-32MS670DX TH-43MS670DX  
TH-32MS660DX TH-43MS660DX

## Operating Instructions

### LED TV



Information on hazardous constituents as specified in sub-rule 1 of rule 16 in electrical and electronic equipment.

Declaration of Conformity with the requirements of the E-Waste (Management) Amendment Rules 2023 with the sub-rule 1 of rule 16 limits with respect to lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers;

The content of hazardous substance with the exemption of the applications listed in SCHEDULE II of the E-Waste (Management) Amendment Rules 2023:

1. Lead (Pb) - not over 0.1% by weight;
2. Cadmium (Cd) - not over 0.01% by weight;
3. Mercury (Hg) - not over 0.1% by weight;
4. Hexavalent chromium (Cr6+) - not over 0.1% by weight;
5. Polybrominated biphenyls (PBBs) - not over 0.1% by weight;
6. Polybrominated diphenyl ethers (PBDEs) - not over 0.1% by weight;



For the purpose of recycling to facilitate effective utilization of Resources, please return this product to a nearby authorized collection center, registered dismantler or recycler, or Panasonic service center when disposing of this product.

Please see the Panasonic website for further information on collection centers, etc., or call the customer care toll-free number.

Website: <http://www.panasonic.com/in/corporate/sustainability/panasonic-india-to-recycle-program.html>

English



Helpline No.: 080-69841333  
E-mail: [helpline@in.panasonic.com](mailto:helpline@in.panasonic.com)



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Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio and the double-D symbol are trademarks of Dolby Laboratories.

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

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

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### ATTENTION

This product is qualified for the BEE Star rating in the 'Home' Mode. The Objectives of Star Labeling Program is designed to promote energy efficient products and practices. When the television is initially set up, it is designed to meet the BEE Star Labeling requirements while maintaining optimum picture quality.

- Changes to certain functionalities of this television (TV Guide, Picture/sound etc) may change the power consumption.
- Depending upon such changed setting (eg., Retail mode), the power consumption may vary which possibly could exceed the stated energy consumption.

To reset the television to Star rating qualified settings, select 'Home' mode from the initial set-up procedure in 'factory settings' under the 'Set-up' menu.

# Chapter 1: Introduction

## ⚠ Warning

### Handling the mains plug and lead

Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)

Ensure that the mains plug is easily accessible.

Do not touch the mains plug with a wet hand. (This may cause electrical shock.)

Do not use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)

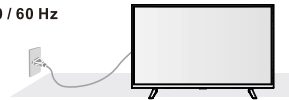
Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)

- Do not move the TV with the lead plugged in the socket outlet.
- Do not place a heavy object on the lead or place the lead near a high-temperature object.
- Do not twist the lead, bend it excessively or stretch it.
- Do not pull on the lead. Hold onto the mains plug body when disconnecting the lead.
- Do not use a damaged mains plug or socket outlet.
- Use the TV in moderate climates.

If you find any abnormality, remove the mains plug immediately!



110 - 240V ~ 50 / 60 Hz



- Mains plug types vary between countries.

### Power source

- This TV is designed to operate on
- 110 - 240V ~ 50/60 Hz
- Table-top use / Wall hanging

### Do not insert external objects into the TV

- Do not allow any objects to drop into the TV through the air vents. (Fire or electrical shock may result)

### Do not use external voltage stabilizer with the TV set

- Inferior quality stabilizer may cause damage to the TV.
- Warranty is not valid if external stabilizer is used.

### Do not place the TV on sloped or unstable surfaces, and ensure that the TV does not hang over the edge of the base

- The TV may fall off or tip over.

### Do not remove covers and never modify the TV by yourself

- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.
- Please refer the information on exterior back enclosure for electrical and safety information before installing or operating the apparatus.
- The mains plug is used as disconnect device, the disconnect device shall remain readily operable.

### Use only the dedicated pedestals/ mounting equipments

- Use an unapproved pedestal or other fixtures may make the TV unstable, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- When mounting the TV on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer. This is a safety feature.
- Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery, etc.).

### Do not expose to rain or excessive moisture

- To prevent damage which might result in electrical shock or fire, do not expose this TV to rain or excessive moisture. This TV must not be exposed dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

### Do not expose to direct sunlight and other sources of heat

- Avoid exposing the TV to direct sunlight and other sources of heat.



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

## Use Environment

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

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

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

(Only for the TV with mass exceed 7 kg)

## Cleaning

- Do not spray water or detergent directly on TV screen for cleaning purpose. Leaking liquid substance will cause damage to TV.



- Be careful of cats, rats or other animals that may urinate on the TV (front and rear). It may lead to TV failure.



- Do not use sharp or hard objects (finger nails, knife and etc.) on TV screen. This may cause damage to the screen surface.

## Hanging the TV Set on the Wall

- Check that the wall can support the weight of the TV set and wall mount assembly.
- Follow the mounting instructions provided with the wall mount.
- The TV set must be installed on a vertical wall.
- Make sure to use only screws suitable for the material of the wall.
- Make sure that the TV set cables are placed so that there is not danger of tripping over them.

All other safety instructions about our TV sets are also applicable here.

Warning: This operation requires two people.

To ensure a safe installation, observe the following safety.

## ⚠ Caution

1. **Read these instructions**---All operating instructions must be read and understood before the product is operated.

2. **Keep these instructions**---These safety and operating instructions must be kept in a safe place for future reference.

3. **Read all warnings**---All warnings on the product and in the instructions must be observed closely.

4. **Follow all instructions**---All operating instructions must be followed.

5. **Attachments**---Only use attachments/ accessories specified by the manufacturer. Do not use attachments not recommended by the manufacturer. Use of improper attachments can result in accidents.

6. **Power source**---This product is intended to be supplied by a listed power supply indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system.

Do not defeat the safety purpose of the polarized or grounding plug. A polarized plug has two blades with one wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

7. **Power cord protection**---Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

**Note:** *Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.*

8. **Overloading**---Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.

9. **Servicing**---Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

10. **Damage requiring service**---If any of the following conditions occurs, unplug the power cord from the AC outlet, and request a qualified service person to perform repairs.

a. When the power cord or plug is damaged.

b. When a liquid is spilled on the product or when objects have fallen into the product.

- c. When the product has been exposed to rain or water.
- d. When the product does not operate properly as described in the operating instructions.

Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.

- e. If the product has been dropped or the cabinet has been damaged in any way.

- f. When the product displays an abnormal condition or exhibits a distinct change in performance. Any noticeable abnormality in the product indicates that the product needs servicing.

- 11. Replacement parts**---In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.

- 12. Safety checks**---Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.

- 13. Stand**---Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. Do not place the product on an unstable trolley, stand, tripod or table. Placing the product on an unstable base can cause the product to fall, resulting in serious personal injuries as well as damage to 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.



- 14. Careful move**---When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. Sudden stops, excessive force and uneven floor surfaces can cause the product to fall from the trolley.

Never attempt to move the TV unless the AC power cord has been disconnected.

- 15. Lightning**---Unplug this apparatus during lightning storms or when unused for long periods of time. For added protection for this television equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the equipment due to lightning and power-line surges.

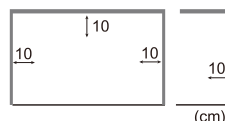
- 16. Panel protection**---The display panel used in this product is made of glass. Therefore, it can break when the product is dropped or impacted upon by other objects. Be careful not to be injured by broken glass pieces in case the display panel breaks.

- 17. Pixel defect**---The display panel is a very high technology product, giving you finely detailed pictures. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does not affect the performance of your product.

**18. Do not block the rear air vents**

- Adequate ventilation is essential to prevent failure of electronic components.
- Ventilation should not be impeded by covering the ventilation openings with items such as newspapers, table cloths and curtains.
- We recommended that a gap of at least 10 cm is left all around this TV even when placed inside a cabinet or between shelves.
- When using the pedestal, keep the space between the bottom of the TV and the surface where the TV is set.
- If pedestal is not used, ensure the vents is the bottom of the TV are not blocked.
- Do not install this equipment in a confined or building-in space such as a book case or similar unit, and remain a well ventilation conditions at open site.

Minimum distance



**Note:** The picture is only for reference.

- 19. Do not ingest the battery, Chemical Burn Hazard--**

Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

- 20. Listening---** Listening to music at high volume levels and for extended durations can damage one's hearing. In order to reduce the risk of damage to hearing, one should lower the volume to a safe, comfortable level, and reduce the amount of time listening at high levels.

## Symbol

- For the terminals marked with symbol of "⚡" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the used of ready-made leads or cords.
- If the product has the symbol  in its rating label and the power cord has two pins, it means that the equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth.

- The following information are recommended to be included where applicable:

~ Refers to alternating current(AC).

--- Refers to direct current(DC).

 Refers to ClassII equipment.

 Refers to stand-by.

| Refers to power ON.

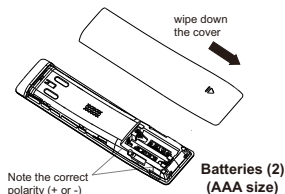
⚡ Refers to dangerous voltage.



- This lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.
- To reduce the risk of electric shock. Do not remove cover (or back). No user serviceable parts inside. Refer to qualified service personnel.
- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

## Installing/Removing Remote's Batteries

Place two AAA size batteries in the remote control's battery compartment, making sure to match the polarity markings inside the compartment.



### Caution

- 1) The picture is only for reference.
- 2) Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- 3) Do not mix old and new batteries.
- 4) Replace only with same or equivalent type. Do not mix different battery types (such as alkaline and manganese batteries).
- 5) Do not use rechargeable (Ni-Cd) batteries.
- 6) Do not burn or break up batteries.
- 7) Do not expose batteries to excessive heat such as sunshine, fire or the like.
- 8) Make sure you dispose of batteries correctly.
- 9) Ensure batteries are replaced correctly, there is danger of explosion and fire if battery is reversed.
- 10) Do not disassemble or modify the remote control.

## Precautions for Using Remote Control

- Use the remote control by pointing it towards the remote sensor. The items between the remote control and the remote sensor will interfere the normal operation.
- Do not make remote control vibrate violently. Also, do not splash liquid on the remote control, also do not put the remote control in high humidity place.
- Do not place remote control under direct sunlight which will cause deformation of the unit by heat.
- When the remote sensor is under direct sunlight or strong lighting, the remote control will do not work. If so please change the lighting or TV's position, or operate the remote control closer to the remote sensor.

## Standard Accessories

### Remote Control



### Pedestal (2)

TH-32MS660DX  
TH-43MS660DX:



TH-32MS670DX  
TH-43MS670DX:



TH-32MS680DX  
TH-43MS680DX:



### Screws (4)



4 screws

TH-32MS660DX/670DX/680DX:ST4x15  
TH-43MS660DX/670DX/680DX:ST4x20

### Batteries (2) (AAA size)



### AV IN Cable



### Operating Instructions



### Note:

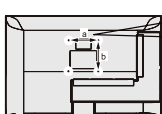
- 1) The pictures are only for reference.
- 2) Accessories may not be placed all together. Take care not to throw them away unintentionally.
- 3) This product contains possibly dangerous parts (such as plastic bags), that can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

## Optional Accessories

\* Please contact local Panasonic dealer to purchase the recommended or designated optional accessories.

### 1) Wall-hanging Bracket

#### • Screw Specifications



| Screw Spec.       |      | 32" |      | 43"  |      |
|-------------------|------|-----|------|------|------|
|                   |      | Top | Down | Top  | Down |
| E "Diameter" (mm) |      | M4  | M4   | M6   | M6   |
| D "Depth" (mm)    | Max. | 9   | 9    | 12   | 12   |
|                   | Min. | 8   | 8    | 11.5 | 11.5 |
| Quantity          |      | 2   | 2    | 2    | 2    |

#### • VESA

| Size   | 32" | 43" |
|--------|-----|-----|
| a (mm) | 100 | 200 |
| b (mm) | 100 | 100 |

### Warning

- Failure to use a Panasonic bracket or choosing to mount the unit yourself will be done at the risk of the consumer. Always be sure to ask a qualified technician to carry out set up. Incorrect fitting may cause equipment to fall, resulting in injury and product damage. Any damage resulting from not having a professional installer mount your unit will void your warranty.
- When any optional accessories or wall hanging brackets are used, always ensure that the instructions provided are followed fully.
- Do not mount the unit directly below ceiling lights (such as spotlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.
- Take care when fixing wall brackets to the wall. Wall mounted equipment shall not be grounded by metal within the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

## Pedestal Installation



### Warning

**Do not disassemble or modify the pedestal.**

- Otherwise the TV may fall over and become damaged, and personal injury may result.



### Caution

**Do not use any pedestal other than the one provided with this TV.**

- Otherwise the TV may fall over and become damaged, and personal injury may result.

**Do not use the pedestal if it becomes warped or physically damaged.**

- If you use the pedestal while it is physically damaged, personal injury may result. Contact your local Panasonic dealer immediately.

**During set-up, make sure that all screws are securely tightened.**

- If insufficient care is taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.

**Ensure that the TV does not fall over.**

- If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.

**Two or more people are required to install and remove the TV.**

- If two or more people are not present, the TV may be dropped, and personal injury may result.

**When removing the pedestal from the TV, do not remove the pedestal by the methods other than the specified procedure.**

- Otherwise the TV and / or pedestal may fall over and become damaged, and personal injury may result.

**Appearance of the product in illustrations may differ from your actual product, and is for reference purposes only.**

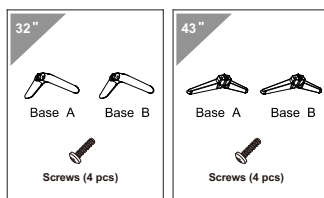
### Removing the pedestal from the TV

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

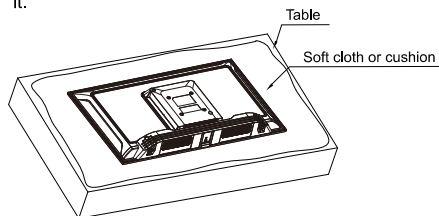
- 1 Remove the assembly screws from the TV.
- 2 Remove the pedestal from the TV.

**Note:** The pictures are only for reference.

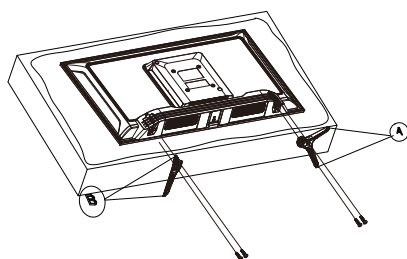
1. Please take out the accessory bag from the package and check if all below parts exist without missing, if not, please contact your local dealer.



2. Take out the TV and carefully put it (screen downward) on a stable and flat table with a soft cloth or cushion on it.



3. Connect the TV and base by putting and fastening matched screws into the holes.



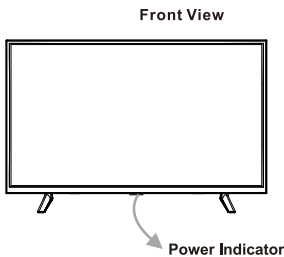
# Chapter 2: Basic Features

## TV Controls

### ■ Turn on or turn off the TV

1. Connect the power cord to the power outlet and the TV. Then the TV will be standby.
2. Press **POWER** button to turn on the TV.
3. In working status, press **POWER** button to turn the TV to standby mode.
4. Disconnect the power cord to power off the TV completely.

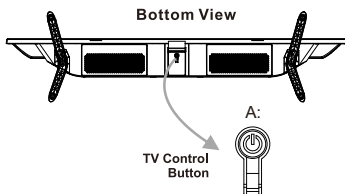
### ■ Power Indicator



**Note:** The picture is only for reference.

- **Lit in Red:** Standby mode.
- **Lit in Green:** Working Status
- **Unlit:** Power off.

### ■ Rocker Button



**Note:** The picture is only for reference.

### • TV Control Button:

⏻ button

Turns the TV on or standby. The TV is on, press it, brings up the main menu or press to return to the previous menu. Before enter menu, long press it for three seconds to display the Source Select.

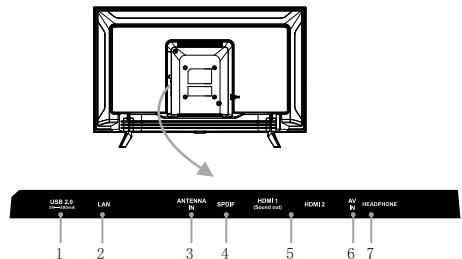
**Note:** The location and names of the function buttons and power button on the TV may vary according to TV model.

**Note:** The location and names of the function buttons and power button on the TV may vary according to TV model.

### ■ TV Terminals

**Note:** The pictures are only for reference.

Back View



#### 1. USB

Connect USB devices to the TV.

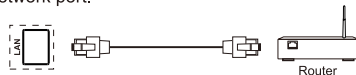


**Note:**

Never remove the USB device or turn off the TV while using the USB device.

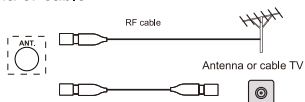
#### 2. LAN

Network port.



### 3 . ANTENNA IN

Connect a coaxial cable to receive signal from the antenna or cable .

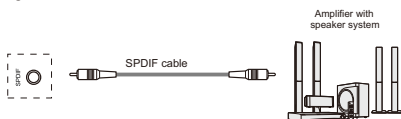


**Note:**

- 1) Do not place the RF cable under the TV.
- 2) To obtain the optimum quality of picture and sound, an aerial, the correct cable (75Ω coaxial) and the correct terminal are required.
- 3) If a community antenna system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
- 4) Your local Television Service Center or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
- 5) Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the customer.

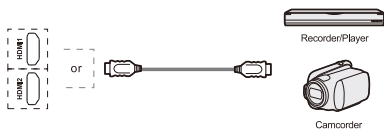
### 4.SPDIF

The SPDIF socket can be used to connect a compatible digital audio receiver.



### 5. HDMI IN

Receive HDMI input signal from the connected HDMI device.

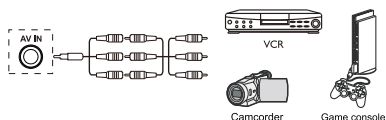


**Note:**

- 1) If the external device has a DVI output only, use a DVI to HDMI adapter cable to connect to the HDMI terminal.
- 2) For the audio receiver control Sound Out, firstly you must have a device which supports HDMI Sound Out, then connect it to the HDMI1 port. When the "Sound Out" setting is enabled on your TV, the TV's speakers will mute automatically and the audio will be outputted on your sound device system.

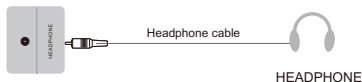
### 6. AV IN

Receive audio and video signal from signal source such as DVD.



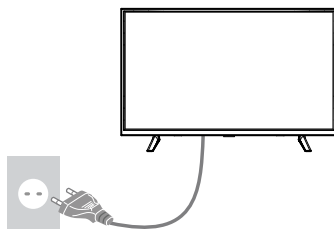
### 7.HEADPHONE

Allow you to connect earphones to listen to the sound coming from the TV.



**Note:** Excessive sound pressure from earphones can cause hearing loss.

### ■ Power Connection



**Note:** The picture is only for reference.

Connect the power cord to the power outlet (110-240V ~ 50/60Hz).

## Remote Control

### Note:

- 1). The picture is only for reference.
- 2). Some buttons may not be available for some regions, some models or some sources.
- 3). Some DTV-related buttons may not be applicable due to non-availability of DTV signal in some areas.



1. (On/Off button) Turns the TV on or off.
2. To mute and un-mute the sound.
3. Switch profile.
4. Enter into Using TV System menu.
5. Start talking to Google Assistant of the TV.
6. (up, down, left and right direction buttons) Highlights different items in the menu system and adjusts the menu controls.
7. **OK** Confirms your selection.
8. Exit the menu and return to the previous menu.
9. Open live TV EPG.
10. Goes to the smart TV homepage.
11. To enter the two-way Bluetooth interface.
12. Enter into Quick Access Menu.
13. Increase or Decrease the sound Volume.
14. To Enter into virtual keyboard.
15. Goes to the prime video homepage.
16. **NETFLIX** Goes to the NETFLIX homepage.
17. Goes to the Hotstar homepage.
18. Goes to the YouTube homepage.

## How to Pair Remote Control with the TV

This is a Bluetooth remote control, and before using it, please pair it with the TV firstly. The following steps are for your reference:

**Step 1:** Press button to enter the home page.

**Step 2:** Press button to enter the "RC pairing".

**Step 3:** Follow the "Settings tips page", Press and together.

**Step 4:** The screen will display "Pairing...", Pair finished the screen will display "Success!".

**NOTE:** If you wait more than 2 minutes and it can't pair, please repeat the above steps for pairing again.

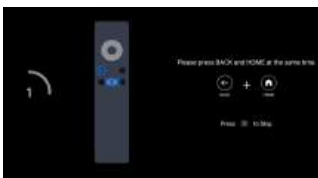
If you want to unpair the Bluetooth remote, Follow as below steps:

**Step 1:** Press button to enter the home page.

**Step 2:** Press to choose , and then press **OK** to enter.

**Step 3:** Press to select "Remotes & Accessories" and then to choose the Bluetooth remote name to enter next steps.

**Step 4:** Press unpair and then choose OK button.



# Chapter 3: Connections and Setup

## Network Connection



**Your TV will require an internet connection to operate all functions. Data usage charges may apply.**

**Please refer to your Internet Service Provider (ISP) for additional information.**

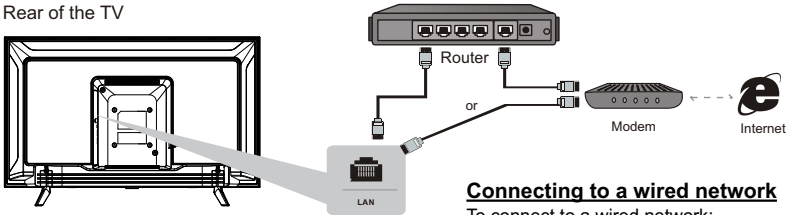
To access the internet, you must subscribe high speed broadband internet service from your internet service provider.

Your TV can be connected to your home network in two ways:

- Wired, using the RJ45 (LAN) connector on the back panel.
- Wireless, using the internal wireless or external wireless USB adapter and your home wireless network.

**Note: The following instructions are just the usual ways to connect your TV to the wired or wireless network. The connection method may be different depending on your actual network configuration. If you have any questions about your home network, please refer to your ISP(Internet Service Provider).**

Rear of the TV



### Connecting to a wired network

To connect to a wired network:

1. Ensure you have:
  - An ethernet cable long enough to reach your TV
  - A router or modem with an available Ethernet port
  - A high-speed internet connection
  - An **Ethernet (LAN) port** on the back of the TV
2. Connect your ethernet cable to the router and to the **Ethernet port** on the back of the TV.
3. Use the **Network Settings** to configure the TV.

### Connecting to a wireless network

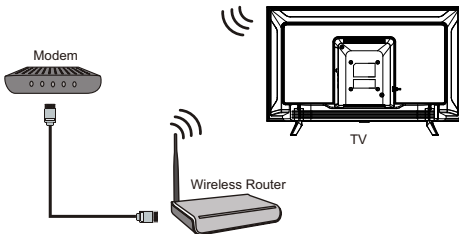
To connect to a wireless network

1. Ensure you have:
  - A router broadcasting a high-speed wireless signal
  - A high-speed internet connection
2. Use the **Network Settings** to configure the TV.

**Note: Some models may have no internal wireless module, you can use wireless network by inserting external wireless adapter into USB socket of the TV. Some external wireless adapters can't be compatible with the TV.**

### ESD regulation

This apparatus meets ESD performance criteria. In case the apparatus does not recover in Ethernet connection mode due to electrostatic discharge, user interference is required.



Built-in wireless connection

## Switching on

Follow the instructions on this page on how to switch on your TV set and the remote control before going on to following pages describing how to use the channel set-up procedure.

1. Insert two AAA batteries in the remote control.

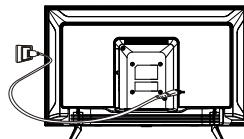
Precautions on using batteries:

- Only use the battery types specified.
- Make sure you use the correct polarity.
- Do not mix new and used batteries.
- Do not use rechargeable batteries.
- Do not expose batteries to excessive heat such as sunshine, fire or the like, throw them in a fire, recharge them or try to open them, as this could cause them to leak or explode.
- Remove the batteries from the remote control if you are not using it for a long period of time.

2. Connect the power cable **FIRST** to the television, **THEN** to a mains socket.  
(Note: If the power cable is connected to the television, please only connect the power cable to the mains socket.)

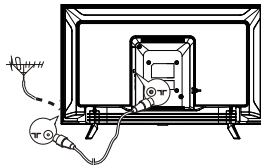
Your TV set should only be connected to an AC supply. It must not be connected to a DC supply. If the plug is detached from the cable, do not, under any circumstances, connect it to a mains socket, as there is a risk of electric shock.

*Note: The figures are for representation only. The location of the power socket at the back of the television might differ depending on the model.*



3. Connect an outside aerial to the **ANTENNA IN** socket at the back of the TV set.

The aerial socket (75 OHM - VHF / UHF / cable) can be used for connecting an external aerial or other equipment fitted.



4. When powered on, the TV will be turned on directly or be in standby.  
Note: After Switch On TV will take some time & LED Blinks(Green and Red).

If the power indicator lights up, the TV set is in standby mode. Press the  button on the remote control or on the TV set to turn on the TV.

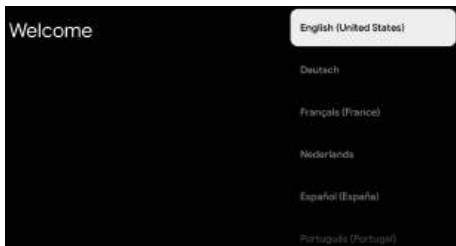
## Switching off

- To put the TV set into standby mode, press the  button on the remote control or on the TV, the TV set remains powered up, but with low energy consumption.
- To switch off the TV set, unplug the mains socket from the mains outlet.  
Note: For some models, press the power button to switch off the TV set .

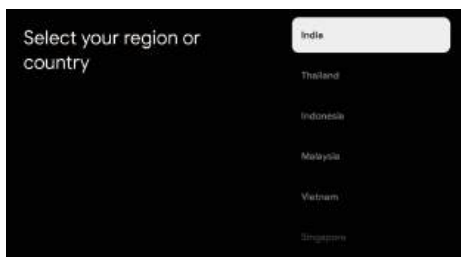
## Google - Initial Setup

When you turn on the TV for the first time, there will show a wizard to guide you to finish the following initial settings:

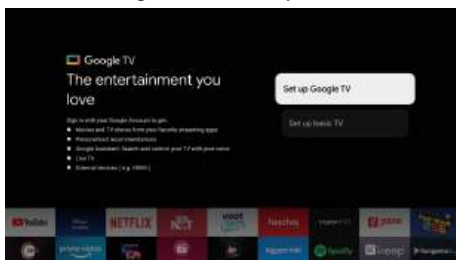
**Step 1: Select the menu language as you need.**



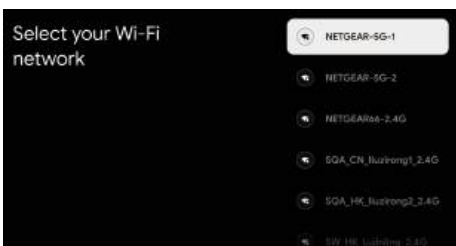
**Step 2: Select your region or country.**



**Step 3: (Only for some countries) Select whether or not to use and Google device to setup the TV.**

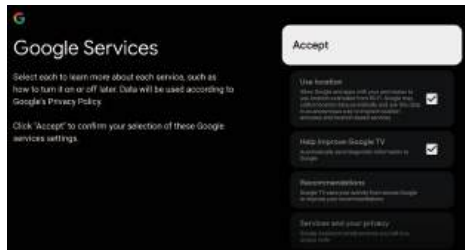


**Step 4: Select whether or not to connect your TV set to the WIFI network.**

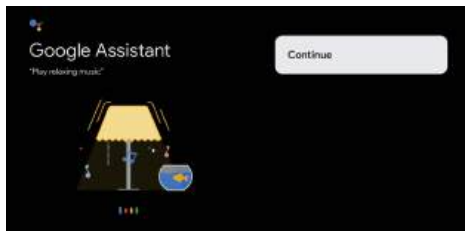


**Note:** If you select Google TV, you must connect to wifi, or you cannot go to the next page.

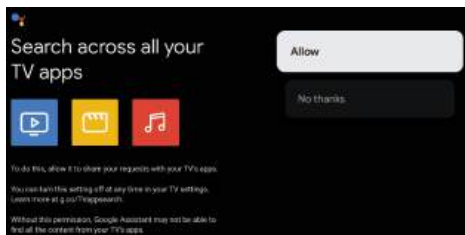
**Step 5: Read to accept the Google terms of service and privacy policy.**



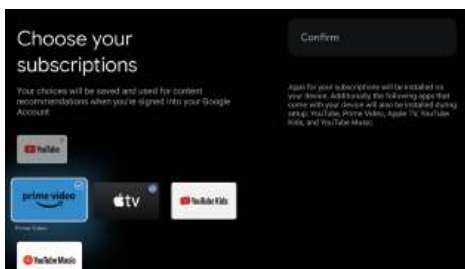
**Step 6: Use Google Assistant**



**Step 7: Search across all your TV apps.**

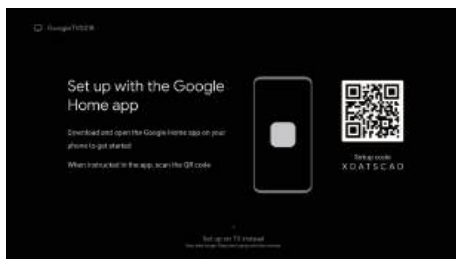


**Step 8: Choose your subscriptions.**



## Google - Initial Setup

Set up with the Google Home app.



Turn on your phone Google Home app, Add users according to the mobile phone prompt, search for the machine name, Scan the QR code or enter the PIN code directly, and operate according to the mobile phone prompt.

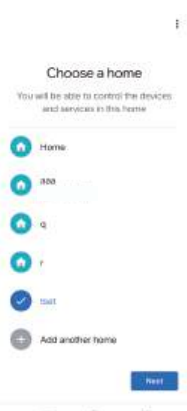
Step 1



Step 2



Step 3



Step 4



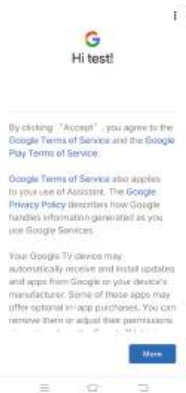
Step 5



Step 6



Step 7



Step 8



## Google - Initial Setup

Step 9



Step 10



Step 11



Step 12



Step 13



Step 14



Step 15



Step 16



Step 17



Step 18



Step 19



## Google - Initial Setup

Initial setup involves selecting all the settings required to be able to search for and store all the analogue channels you can receive.

Make sure that the television is switched on and follow all the steps in turn specified hereafter.

The first time you switch the set on, the Initial Setup wizard opens, which guides you through the initial setup process.

### Step 1: Environment

**Home Mode:** You Would be able to view the standard settings for Picture and sound modes.

**Shop Mode:** You can enjoy enhanced setting for Picture and Sound modes.

**Shop with demo:** Enter to Shop with demo mode

**Note:** *Picture mode setting will not be accessible when you select Shop Mode.*

### Step 2: Terms & Conditions

Use ▲/▼ to read Terms & Conditions, then press **OK** to confirm and move to next step.

### Step 3: Channel installation

Use ▲/▼ to select Tuner mode: Antenna, Cable;  
Type: Digital, Analogue and All, then press **OK** to confirm and move to next step.

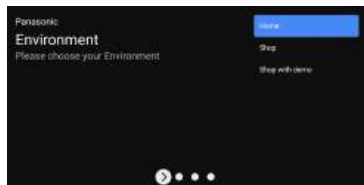
### Step 4: Please check settings

When all setup is done, the [Please check settings] interface displays on the screen, and press **OK** to finish the initial setup. You can also go back to former step and make any changes by using ← button.

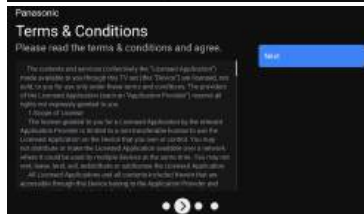
### Step 5: Installing your apps

### Step 6: Your Google TV experience is ready

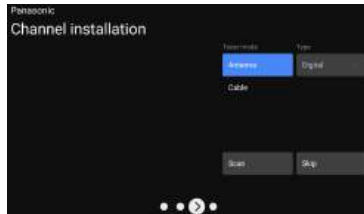
#### Step 1:



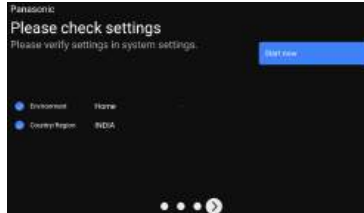
#### Step 2:



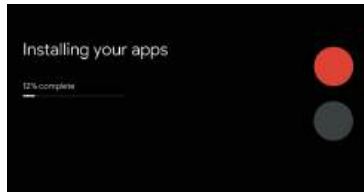
#### Step 3:



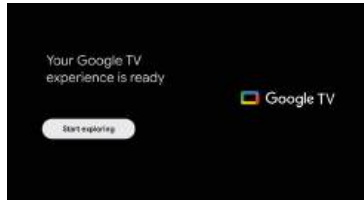
#### Step 4:



#### Step 5:



#### Step 6:



# Chapter 4: General Operation

## Using Homepage

**Note:** This manual is for common use. Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. And for some models, certain options are not available.

You can select all the features from homepage.

Press **Home** to display homepage.

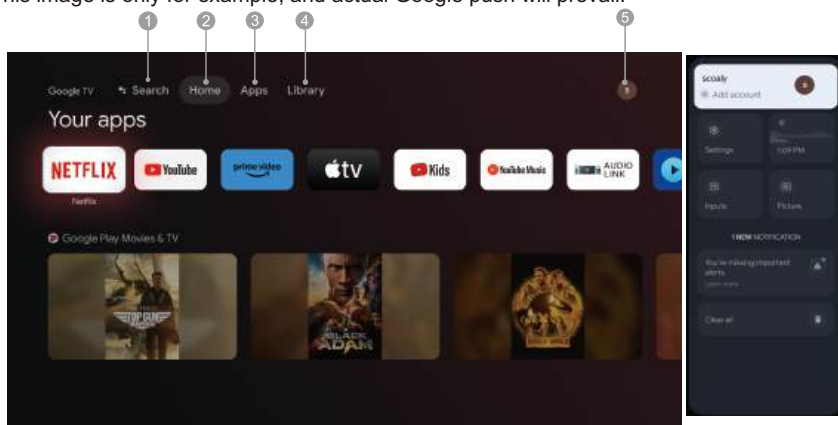
Press **▲/▼/◀/▶** to select icons from the screen list.

Press **OK** to enter each option.

Press **←** or **Home** to exit the APP.

Note:

After connecting to the internet, Google will push it online and update it from time to time. This image is only for example, and actual Google push will prevail.



**1. Search:** Hold the Assistant button down and talk Search movies shows, apps and more.

**2. Home:** Select icons from the screen list.

**3. Apps:** Show the list of favorite applications, or access the application center.

**4. Library:** Your Library is empty, Find your purchases, rentals, and watchlisted content across TV mobile, and web here.

**5. S:** You can select Settings, Inputs, Picture and view notifications.

**Note:**

1) The functions and contents of "Home Page" may vary by different countries or models.

2) Before using network functions in home page like network applications and so on, please connect the TV to the network firstly.

3) Icon copyrights are owned by the application providers.

## Apps

**Netflix:** Press this icon to enter into Netflix application. Netflix is a streaming service that allows user to watch a wide variety of award-winning TV shows, movies, documentaries and many more.

**Prime Video:** Access various Amazon Prime Originals as well as other popular movies and TV shows. Firstly, please select <Sign In> or <Settings => your device> to register your Panasonic TV with your Amazon account on your TV device or the Amazon website.

**YouTube:** Press this icon to enter into YouTube application. Browse this application to watch a wide variety of online videos.

**MirAle:** A whole new world of convenience and comfort just opened up for you! Panasonic empowers your everyday life with seamless connectivity across all your Panasonic appliances with MirAle app. Customer can install MirAle app from Play store

**Hotstar:** Hotstar is an online video streaming platform, Hotstar currently offers over 100,000 hours of TV content and movies and every major sport covered live.

**SONY LIV:** Sonyliv is one of major TV channel of Indian television industry. Sonyliv is focused on core entertainment.

**Fast Cast:** An app that quickly delivers mobile content to TV, allowing users to quickly deliver multimedia content such as photos, videos, music and more to TV terminals. Fast Cast Step:



1. Download Fast Cast mobile App.
2. Mobile and TV are connect the Same Wi-Fi.
3. Search device and connect TV.

**Note:**

1. This function may be unavailable for some mobile devices, and it subject to chipset support the files format.

2. Recommendations of working environments:

A: Local Area Network Speed recommendations on :  
1M/S~2M/S.

B: Applicable files :4K video Definition shall be 30fps ;  
Below 4K definitions not limited.

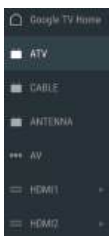
C: Files required MP4, AVI, TS, FLV, f4v, m3u8  
(subject to chipset supported)

## Accessing channels

Using the **CH**  $\nabla/\wedge$  buttons press the **CH**  $\nabla/\wedge$  buttons on the remote control or the corresponding buttons on the TV set to scroll through the channels.

## Watching connected devices

Press  $\square$  in HOME page, then press  $\blacktriangle/\blacktriangledown$  to select your desired source, and then press **OK** to confirm.



*Note: The available source might differ depending on the model.*



### Display & Sound

**Picture:** Enter to adjust picture mode or Advanced settings.

**Screen:** Select this option to adjust the picture size.

**Sound:** Select this option to set the sound adjustments.

**Audio output:** Select this option to set the Audio adjustments.

## Using System Settings

The Settings menu allows you to configure the TV with your preferences.

**Note:** Some of the functions might be unavailable in certain sources. And for some models, certain options are not available.



Each menu is outlined and detailed to help you get the most from your TV. To access the menu system:

1. Press  $\blacktriangle/\blacktriangledown$  to select the desired item, then press **OK** to open the corresponding submenu.
2. In submenu, use  $\blacktriangle/\blacktriangledown$  and **OK** buttons to make the adjustments, or use  $\blacktriangle/\blacktriangledown$  to select an item, use **OK** to enter and operate according to the on-screen display or guide.
3. Press  $\leftarrow$  to return to the previous menu.

## Volume

**Volume control:** press the **VOL**  $\pm$  buttons on the remote control or the corresponding buttons on the TV set to increase or decrease the volume.

**Sound mute:** press the  $\text{speaker with slash}$  button to temporarily mute the sound. Press this button again or the **VOL**  $\pm$  button to restore the sound.

## Using Quick Access Menu

**Note:** Some of the functions might be unavailable in certain sources. And for some models, certain options are not available.

This section explores the menus and settings of your TV. Each menu is outlined and detailed to help you get the most from your TV. To access the menu system:

1. In TV mode, press  $\equiv$  on the remote control to display the quick access list.
2. Press  $\blacktriangle/\blacktriangledown$  to select the desired item, then press **OK** to open the corresponding submenu.
3. In submenu, use  $\blacktriangle/\blacktriangledown$  and **OK** buttons to make the adjustments, or use  $\blacktriangle/\blacktriangledown$  to select an item, use **OK** to enter and operate according to the on-screen display or guide.
4. Press  $\leftarrow$  to return to the previous menu.

## Channels Setup

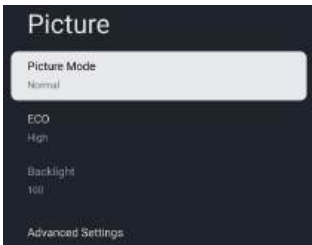


### Analogue Setup

- Analogue Auto Tuning: Press OK to start the automatic search process. The search may take a few minutes. During the process, you can press **←** to choose YES to exit.
- Analogue Manual Tuning: Press OK to enter the interface. Press **◀/▶** to select your system, the press **▲/▼** select Frequency and press OK to search, fine tune or store the channel.
- Teletext Setup

Decoding page language: Press OK and then use **▲/▼** to select Decoding page language.

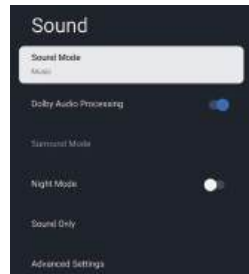
## Picture



### Picture Adjustment:

- Picture Mode: Optimize picture quality for general content. Use **◀/▶** to scroll through the Picture preset settings: Normal, Dynamic, Cinema, Sport, Game and Custom.
  - ECO: You can select Off, Low and High.
  - Backlight: Select the level of 0-100.
  - Advanced Settings: Access advanced picture enhancing options.
- Color Temperature: Adjusts the color saturation.  
 Dynamic Contrast: Adjusts the Dynamic Contrast of the picture.  
 HDMI PC/ AV Mode: Select Video, PC and Auto.  
 Overscan: Select ON or OFF.  
 Noise Reduction: Select Off, Low, Middle, High, Auto.  
 Picture Reset: To reset picture adjustment.  
 ALLM: ALLM On and Off.  
 Switch ALLM Mode to ON and Switch on Game Mode in Xbox.  
 Connect Xbox to HDMI port. Set HDMI mode to 2.0 in TV for Gaming experience (HDMI 1.4 does not support ALLM)  
 Motion Estimate and Motion Compensation (MEMC): Refines moving images.  
 Gamma: Select 2.2 or 2.4.

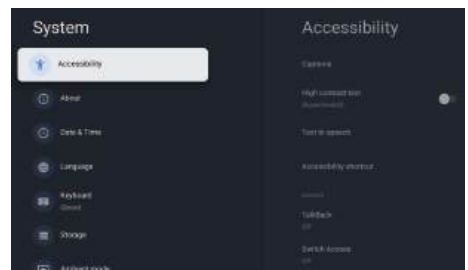
## Sound



### Sound: Adjust sound and speaker-related options.

- Sound Mode: Optimize sound quality for general content. Use **◀/▶** to scroll through the sound preset settings: Standard, Speech, Music, Stadium and User.
- Dolby Audio Processing: Select ON or OFF.
- Surround Mode: Reproduces life-like surround sound when playing 5.1-channel audio sources. Include On and Off.
- Night Mode: On and Off.
- Sound Only: Select Sound Only mode setting.
- Advanced Settings: Access Advanced sound enhancing options.

## System



Each menu is outlined and detailed to help you get the most from your TV. To access the menu system:

1. Press **▲/▼** to select the desired item, then press **OK** to open the corresponding submenu.
2. In submenu, use **▲/▼** and **OK** buttons to make the adjustments, or use **▲/▼** to select an item, use **OK** to enter and operate according to the on-screen display or guide.
3. Press **←** to return to the previous menu.

# Chapter 5: Other Information

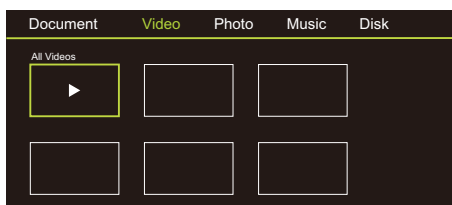
## Multimedia

### ■ Preparation

- Insert your USB device on the TV to view compatible photo and movie on the TV screen or play compatible music through the TV.
- If the connected USB hard disk does not have an external power source, it may not be detected. Be sure to connect the external power source.
- To avoid losing the data on your USB device or damaging your USB device, it is recommended that you back up all data on your USB device.
- The control menu displays in media player may differ by different regions or models. And please take your actual TV as the standard.
- If you want to pull out your USB device, please exit USB mode firstly.
- For instructions on using your USB device, refer to the owner's manual of your USB device.
- Never remove the USB device or turn off the TV while using the USB device. Doing so may result in loss of data or damage to the USB device or the TV.
- Certain types of USB devices may not be compatible with the TV.

### ■ Media Operation

Please select <  → Apps → Player > to open the media player where you can play the selected media file on the TV screen.



**Step 1:** Connect your USB device to the TV.

**Step 2:** Press  button to enter the home page.

**Step 3:** Press /// and **OK** button to select and enter "Apps".

**Step 4:** Press /// and **OK** button to select and enter "Smart Player".

**Step 5:** Press /// button to select and enter a file type: **Movie**, **Photo** or **Music**.

**Step 6:** Press /// and **OK** button to select and play the desired media file which is the same file type as which you have selected in Step 5.

**Step 7:** Press **OK** button to start the playback.

**Step 8:** Press  button to exit the playback.

### ■ Watch Movies

While watching a movie, press the following buttons to control the movie playback.

| Button                                                                                            | Status              | Function                                                                        |
|---------------------------------------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------------|
| <b>OK</b>                                                                                         | Without control bar | Call out the control bar,                                                       |
|                                                                                                   | With control bar    | Pause or play.                                                                  |
| <b>LEFT/RIGHT</b>                                                                                 | With control bar    | Fast backward or fast forward,                                                  |
|  ( <b>MENU</b> ) | Both                | Photo Scale, Looping mode, Subtitle, Subtitle code, Audio track, info, Setting. |

### ■ Browse Photos

While browsing a photo, press the following buttons to control the photo playback.

| Button                                                                                            | Function                                                                                             |
|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>LEFT/RIGHT</b>                                                                                 | Change to previous or next photo.                                                                    |
|  ( <b>MENU</b> ) | Left Rotation, Right Rotation, Zoom+, Zoom-, Manual play, Information, Play mode, Paly Interval, BGM |

### ■ Play Music

While playing music, press the following buttons to control the music playback.

| Button    | Status                                                                                                                                                                            | Function                          |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| <b>OK</b> | Select OK button                                                                                                                                                                  | Pause or play.                    |
| <b>OK</b> | Select the  or  | Change to previous or next music. |
| <b>OK</b> | Select the  or  | Fast backward or fast forward,    |

### ■ Disk:

1. Select **Disk** icon, then press **OK** button to choose folder.
2. Press Up, Down, Left or Right direction button to select your desired file and press **OK** to Play.
3. Press Return key of remote to stop.

### Notes:

1. Under the following conditions, this system cannot decode the file and the file cannot be play normally:
  - The parameters of file, such as the pixel of picture, code rate of audio and video file, sampling rate of audio file, exceed the limit of the system;
  - The format of file is not matched or the file is harmed.Note: The code rate of this system does not support exceed 20Mbps.

2. Hot plug: Do not disconnect when the system is reading or transmitting data, avoid damaging the system or the device.

## AudioLink Application Guide

3. Pay attention to the power supply of the device when you are using a mobile hard disk or a digital camera. If the power supply is not sufficient or not stable, you may encounter problems during operating or can not operate at all. In this case, please restart the device, or unplug the device and plug it again, and ensure that its power supply is normal.

4. The system supports standard USB1.1 and USB2.0 devices, such as standard U-disks, MP3 players, mobile hard disks, etc..

5. For obtaining better audio and video quality, It is suggested to use the external device which accords with USB2.0 \ USB3.0 standard.

6. When playing the video with high compression ratio, these phenomenons, such as picture standstill and menu long time response, are normal.

7. For some USB device with power supply, such as large size hard disk, MP4, etc., Suggests using it with power to avoid electric power shortage. The parameters of file, such as the pixel of picture, code rate of audio and video file, sampling rate of audio file, exceed the limit of the system.

AudioLink is a directional application for audio transmission. It supports the setting of two working modes. The first mode is to push audio from the TV to the audio peripheral. The second mode is to push audio to the TV from a Bluetooth playback device (such as a mobile phone). In the initial state, the default mode is mode one. The following describes how to use the two working modes.

**Mode 1:** The TV sends audio to the audio peripherals

Step1: Press the AudioLink key on the remote Or click on the homepage APPS to Launch AudioLink APP, as shown below Figure1:

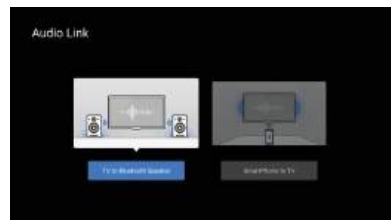


Figure1

Step2: Click [TV to Bluetooth Speaker] if the TV is already in the current mode, it will jump to the search Bluetooth device interface. At this time, you can search for nearby Bluetooth audio peripherals, and click Connect, as shown below Figure2:



Figure2

If TV is in Mode 2 aboveat this time, click [TV to Bluetooth Speaker] to pop up a prompt dialogClick Yes again to jump to the above Figure2, as shown below Figure3

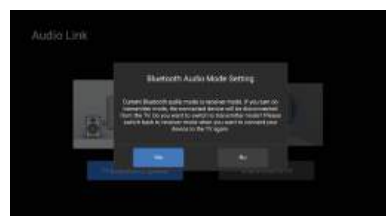


Figure3

In the mode, after successfully connecting with peripheral devices such as Bluetooth audio, when the TV side plays audio and video, audio will be output through the peripheral device.

**Mode 2: Bluetooth playback device pushes audio to the TV.**

Step1: Start the app according to Step 1 in the above mode 1, If the TV is in the mode at this time, select and click the [SmartPhone to TV] button to pop up a prompt dialog, as shown below Figure4:



Figure4

Step2: Click Yes in the Step1 prompt dialog, it will switch to mode two, and jump to something like the figure below Figure5:



Figure 5

Step3: Open the list of handheld devices, as shown below Figure6:



Figure6

**Add Device**

Click Add Device and you will be prompted as follows:

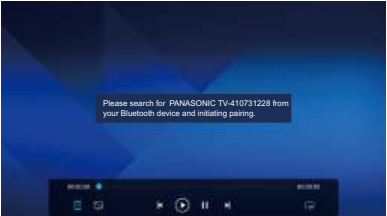


Figure7

At this time, turn on Bluetooth on the mobile phone and search for the current TV name. Click the device to connect. During the connection process, you need to click the pairing consent button on the TV and the mobile phone at the same time, as shown below

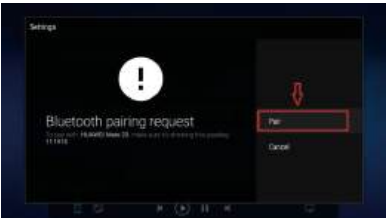


Figure8

After the connection is successful, there will be connected devices in Figure 6 and then play music through the music player on the phone. The TV will display the playback progress, song information, and can control the playback status.

**Delete Device**

Select Delete Device, then click a device in the list, click Yes to delete the device as shown below



Figure9



Figure10

### Uncheck Delete Device

Uncheck Delete Device, if you click the connected device, you can disconnect the device, as shown below:

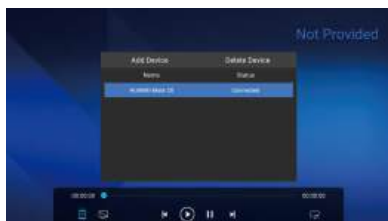


Figure11

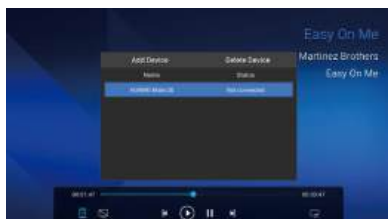


Figure12

Uncheck Delete Device, if you click on a device that is not connected, the TV will initiate pairing connection, and the Bluetooth interface on the TV and mobile phone will pop up Figure 8 and Figure 9 respectively. You need to click pairing. After the pairing is successful, you can Continue to use mobile phone to push music to TV.

## Troubleshooting

Most problems you encounter with your TV can be corrected by consulting the following troubleshooting list.

### No picture, no sound

1. Check if the fuse or circuit breaker is working.
2. Plug another electrical device into the outlet to make sure it is working or turned on.
3. Power plug is in a bad contact with the outlet.
4. Check the signal source.

### No color

1. Change the color system.
2. Adjust the saturation.
3. Try another channel. Black-white program may be received.

### Remote control does not work

1. Change the batteries.
2. Batteries are not installed correctly.
3. Main power is not connected.

### No picture, normal sound

1. Adjust the brightness and contrast.
2. Broadcasting failure may happen.

### Normal picture, no sound

1. Press the **Vol+** button to increase volume.
2. Volume is set to mute, press the mute button to restore sound.
3. Change the sound system.
4. Broadcasting failure may happen.

### Unorderly ripples on the picture

It is usually caused by local interference, such as cars, daylight lamps and hair driers. Adjust the antenna to minimize the interference.

### Blank screen when connected computer system

Perhaps the TV can not recognize the resolution set by the PC. Suggest to change to the best resolution or other standard resolutions of the Windows system.

### Snowy dots and interference

If the antenna is located in the fringe area of a television signal where the signal is weak, the picture may be marred by dots. When the signal is extremely weak, it may be necessary to install a special antenna to improve the reception.

1. Adjust the position and orientation of the indoor/outdoor antenna.
2. Check the connection of antenna.
3. Fine tune the channel.
4. Try another channel. Broadcasting failure may happen.

### Ignition

Black spots or horizontal streaks appear, or the picture flutters or drifts. This is usually caused by interference from car ignition system, neon lamps, electric drills, or other electrical appliance.

### Radio frequency interference

This interference produces moving ripples or diagonal streaks, and in some case, loss of contrast in the picture. Find out and remove the radio interference source.

This product uses certain open sources software for necessary legal information, please see the support page of this product at <http://www.panasonic.com/middleeast/en/support.html>

## Chapter 6: Technical Information

### Supported file format in Media Player

#### 1.Video

| Container   | Video Codec(flie type)           | Resolution | Max fps | Maxbitrate ( Mbps ) | Bit depth |
|-------------|----------------------------------|------------|---------|---------------------|-----------|
| MPEG 1/2/4  | MPEG1                            | 1920x1080  | 60      | 50M                 | 8         |
|             | MPEG2 MP@HL                      | 1920x1080  | 60      | 50M                 | 8         |
|             | MPEG-4 SP@HL 3.0                 | 1920x1080  | 60      | 50M                 | 8         |
|             | MPEG-4 ASP@HL 4.0                | 1920x1080  | 60      | 50M                 | 8         |
| Xvid        | XviD                             | 1920x1080  | 60      | 50M                 | 8         |
| H.264       | H.264 BP LV 4.0                  | 1920x1080  | 30      | 125M                | 8         |
|             | H.264 MP LV 4.0                  | 1920x1080  | 60      | 125M                | 8         |
|             | H.264 HP LV 4.0                  | 1920x1080  | 60      | 125M                | 8         |
|             | H.264 MVC (version 11)           | 1920x1080  | 60      | 125M                | 8         |
| H.265       | H.265 Main profile @ Level 4.1   | 1920x1080  | 60      | 125M                | 8         |
|             | H.265 Main10 profile @ Level 4.1 | 1920x1080  | 60      | 125M                | 8/9/10    |
| Generic     | Motion JPEG                      | 1920x1080  | 60      | 25M                 | 8         |
| WMV         | Window Media Video v9            | 1920x1080  | 60      | 25M                 | 8         |
| VC1         | VC-1 (SP/MP/AP)                  | 1920x1080  | 60      | 25M                 | 8         |
| VP9         | VP9(profile-2 10bit)             | 1920x1080  | 60      | 50M                 | 8/10      |
| RM          | RV 8 (rv30)                      | 1920x1080  | 30      | 25M                 | 8         |
|             | RV 9 (rv40)                      | 1920x1080  | 30      | 25M                 | 8         |
|             | RV 10 (rv40)                     | 1920x1080  | 30      | 25M                 | 8         |
| AVS         | AVS Jizhun Profile LV 6.0        | 1920x1080  | 30      | 25M                 | 8         |
|             | AVS Plus                         | 1920x1080  | 30      | 25M                 | 8         |
| Sorenson    | Sorenson H.263                   | 1920x1080  | 30      | 25M                 | 8         |
| Motion JPEG | M-JPEG                           | 1920x1080  | 60      | 25M                 | 8         |
| H.263       | H.263                            | 1920x1080  | 30      | 25M                 | 8         |

## 2.Audio

| Container         | Audio Codec(file type)                   |
|-------------------|------------------------------------------|
| PCM               | wav: PCM / ADPCM / A-law PCM / u-law PCM |
|                   | ADPCM IMA4                               |
| AMR               | AMR-NB, AMR-WB/AMR-WB+                   |
| LPCM              | DVD LPCM                                 |
| RA                | cook: COOK (RealAudio6)                  |
| MPEG 1/2/4        | MPEG1 Layer1/2                           |
|                   | MPEG1 Layer1/2 (MPEG2)                   |
|                   | MP3 (MPEG1 Layer3)                       |
| AAC               | MPEG2 AAC (AAC-LC)                       |
|                   | MPEG4 AAC-LC                             |
|                   | MPEG4 HE-AAC v1/v2                       |
|                   | raac: MPEG4 AAC-LC                       |
|                   | racp: MPEG4 HE-AAC v2 (RealAudio10)      |
| WMA               | WMA v7                                   |
|                   | WMA v8                                   |
|                   | WMA v9                                   |
|                   | WMA Pro                                  |
| Dolby AC3 (DD)    | AC3                                      |
|                   | Dolby Digital EX, Dolby Digital Plus     |
|                   | dnet: AC3 (RealAudio3)                   |
| Dolby EAC3 (DDCO) | Dolby Digital Plus                       |
|                   | Dolby Digital Plus                       |
| Dolby TrueHD      | Dolby lossless                           |
| Dolby MS11        | No-HEAAC                                 |
| Dolby MS12 v1.3   | Config-D                                 |
| FLAC              | FLAC                                     |
|                   | FLAC (96hz)                              |
| VORBIS            | VORBIS                                   |

## 3. Video / Audio Container

| Container   | File extension                            |
|-------------|-------------------------------------------|
| TS          | .ts, .tsv, .tsa                           |
| M2TS        | .m2ts                                     |
| MP4         | .mp4, .m4a, .m4p, .m4b, .m4r              |
| 3GP         | .3gp                                      |
| MKV,MKA     | .mkv .mk3d .mka .mks                      |
| FLV         | .flv, .f4v, .f4p, .f4a, .f4b              |
| ASF,WMV,WMA | .wmv, .wma                                |
| RM, RMVB    | .rm, .rmvb                                |
| AVI         | .avi                                      |
| MPG, MPEG   | .dat, .vob, .mpg, .mpeg, .m4a             |
| OGG         | .ogg, .ogv, .oga, .ogx, .ogm, .spx, .opus |
| MP3         | .mp3                                      |
| WAV         | .wav, .wave                               |
| APE         | .ape                                      |
| AIFF        | .aiff, .aif, .aifc                        |

## 4.Image Decoder

| File Extension | Container | Data Type               |
|----------------|-----------|-------------------------|
| *.jpg          | JPEG      | baseline<br>progressive |
| *.bmp          | BMP       |                         |
| *.png          | PNG       |                         |
| *.gif          | GIF       | static<br>animation     |
| *.heic         | HEIF      | HEVC                    |

## Do's & Don't

| S.No. | <u>Do's</u>                                                                                                                                    | <u>Don't</u>                                                                                                                                                |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | All electrical and electronic products are required to be handed over only to the Authorized recycler                                          | The product should not be opened by the User himself/herself, but only by authorized service personnel.                                                     |
| 2     | The product should be handed over only to authorized recycler for disposal.                                                                    | The product is not meant for re-sale any unauthorized agencies/scrap dealer/ kabariwalas.                                                                   |
| 3     | Keep the product in isolated area, after it becomes non-functional/un-repairable so as to prevent its accidental breakage.                     | The product is not meant for mixing into household waste stream.                                                                                            |
| 4     | Refer to Operating Instructions for handling of end of life products.                                                                          | Do not keep any replaced spare part(s) from the product in exposed area.                                                                                    |
| 5     | Always Dispose products that have reached end-of life at Panasonic Life Solutions India Authorized Service centre.                             | Do not donate old electronic items to any body.<br>Do not dispose your product in garbage bins along with municipal waste that ultimately reaches landfill. |
| 6     | Wherever possible or as instructed, separate the packaging material according to responsible waste disposal options and sorting for recycling. | Do not give e-waste to informal and unorganized sectors like Local Scrap Dealer/ Rag Pickers.                                                               |

## Disclaimer about Using Smart Features

Network application contents and services are controlled by network application providers by means of networks and transmission facilities, which are subject to alteration, suspension, removal, termination or interruption, or invalid access at any time without further notice in that the manufacturer is unable to control or to be informed of the aforesaid change. The manufacturer makes a further declaration that it disclaims any responsibility or liability arising from customer's failure to use the network application contents and services caused by, including but not limited to, failure of network connection or communication lines, technological updates, or the alteration, suspension, interruption, termination, disabling, or removal of any contents or services by the network application providers etc.

### Note:

- Some USB storage devices may not be compatible to operate smoothly with this TV.
- Back up all of the data in the USB storage device in case data was lost due to an unexpected accident.
- We do not assume any liability for the losses by misuse or malfunction. Data backup is consumer's responsibility.
- For large file sizes, the loading speed may be slightly longer.
- The recognition speed of a USB storage device may depend on each device.
- When connecting or disconnecting the USB storage device, ensure that the TV is not in USB mode otherwise the USB storage device or the files stored in it may be damaged.
- Please use only a USB storage device which is formatted in FAT16, FAT32, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility program which is not supported by Windows, it may not be recognized.
- When using a USB Hard Disk Drive which requires electric power source, ensure its power does not exceed 500mA. If the power of the USB hard Disk exceed 500mA, the TV system will be changed into standby mode, then you must pull away the USB hard Disk and restart the TV system.
- An "Unsupported File" message will be displayed if the file format is unsupported or corrupted.
- FHD big picture needs longer time to process, which is not caused by the TV. Please be patient to wait.
- This TV may not support some multimedia files changed and upgraded as the change of encoding format or other technical advances.
- Use high-quality mobile device to record HD programs, otherwise the videos will be jammed during the playback. Back up all of the data in the USB storage device
- in case data was lost due to an unexpected accident. We do not assume any liability for the losses by misuse or malfunction. Data backup is consumer's responsibility.

Do not power off the TV during the software upgrading process, otherwise the TV may not work, and the customer should be responsible.

The browser may not support some web pages or videos due to network failure, difference of regions or service interruption, which has nothing to do with the TV.

Each trade mark indicated on this TV are the property of each trademark right holder, and all rights are reserved by them.

This product uses certain open sources software:  
For necessary legal information, please see the support page of this product. (<http://www.panasonic.com/in/>)

## Maintenance

First, remove the mains plug from the socket outlet.

### Regular care:

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

### Mains plug

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

### Caution

Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.

- Take care not to subject the TV' surfaces to water or detergent Liquid inside the TV could lead to product failure.
- Take care not to subject the surface to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling pf the paint.
- The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

## Specifications

| Model No.              |                     | TH-32MS660DX                                                                            | TH-43MS660DX                                                                               |
|------------------------|---------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Power Source           |                     | 110 – 240 V ~ 50/60 Hz                                                                  | 110 – 240 V ~ 50/60 Hz                                                                     |
| Power Consumption      | Power Rating        | 50W                                                                                     | 75W                                                                                        |
|                        | Standby condition   | < 0.5 W                                                                                 | < 0.5 W                                                                                    |
| Display panel          | Visible screen size | 80 cm                                                                                   | 108 cm                                                                                     |
|                        | Number of pixels    | 1366(W)x768(H)                                                                          | 1920(W)x1080(H)                                                                            |
| Dimensions (L x B x H) |                     | 72.59cm x19.18cm x 48.09cm<br>(With Pedestal)<br>72.59cm x8.17cm x 43.08cm<br>(TV only) | 96.68 cm x26.61cm x 61.5cm<br>(With Pedestal)<br>96.68 cm x 8.85 cm x 56.64cm<br>(TV only) |
| Net weight             |                     | 3.6 kg Net (With Pedestal)<br>3.5 kg Net (TV only)                                      | 6.1 kg Net (With Pedestal)<br>6.0 kg Net (TV only)                                         |
| Gross Weight           |                     | 4.9kg                                                                                   | 8.6 kg                                                                                     |
| Sound                  | Speaker             | 6 Ω                                                                                     | 6 Ω                                                                                        |
|                        | Audio output        | 20 W (10W + 10 W )                                                                      | 20 W (10W + 10 W )                                                                         |
| TV System              |                     | PAL/SECAM, BG/DK/I, NTSC(AV)                                                            |                                                                                            |
| Connection terminals   | USB                 | USB 2.0 TYPE A Connectors x 2 ,<br>(DC 5 V, MAX 500 mA)                                 |                                                                                            |
|                        | LAN                 | RJ45 x 1                                                                                |                                                                                            |
|                        | ANTENNA             | Aerial connector x 1                                                                    |                                                                                            |
|                        | SPDIF               | SPDIF x 1                                                                               |                                                                                            |
|                        | HDMI input          | HDMI connector x 2                                                                      |                                                                                            |
|                        | AV IN               | AV IN x 1                                                                               |                                                                                            |
|                        | HEADPHONE           | HEADPHONE x 1                                                                           |                                                                                            |
| Connectivity           | WiFi Type           | 802.11a/b/g/n/ac 2.4G/5G 2T2R,Build-in                                                  |                                                                                            |
|                        | Bluetooth Ver.      | Integrated Bluetooth V5.0                                                               |                                                                                            |

### Note:

1. Design and Specifications are subject to change without notice.
2. Weight and Dimensions shown herein are approximate
3. The graphics in this manual are only for reference.
4. Your TV may be slightly different from that shown in this manual.
5. In dry environment due to static electricity, the product may restart and return to the main OSD interface, USB player interface or the previous source mode. It is normal and please continue to operate the TV. .

## Specifications

| Model No.              |                     | TH-32MS670DX                                                                           | TH-43MS670DX                                                                                |
|------------------------|---------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Power Source           |                     | 110 – 240 V ~ 50/60 Hz                                                                 | 110 – 240 V ~ 50/60 Hz                                                                      |
| Power Consumption      | Power Rating        | 50W                                                                                    | 75W                                                                                         |
|                        | Standby condition   | < 0.5 W                                                                                | < 0.5 W                                                                                     |
| Display panel          | Visible screen size | 80 cm                                                                                  | 108 cm                                                                                      |
|                        | Number of pixels    | 1366(W)x768(H)                                                                         | 1920(W)x1080(H)                                                                             |
| Dimensions (L x B x H) |                     | 71.57cm x18.33cm x 47.05cm<br>(With Pedestal)<br>71.57cm x8.45cm x 42.4cm<br>(TV only) | 95.47 cm x20.96cm x 60.26cm<br>(With Pedestal)<br>95.47 cm x 8.69 cm x 55.64cm<br>(TV only) |
| Net weight             |                     | 4.0 kg Net (With Pedestal)<br>3.9 kg Net (TV only)                                     | 6.1 kg Net (With Pedestal)<br>6.0 kg Net (TV only)                                          |
| Gross Weight           |                     | 5.5 kg                                                                                 | 8.7 kg                                                                                      |
| Sound                  | Speaker             | 6 Ω                                                                                    | 6 Ω                                                                                         |
|                        | Audio output        | 20 W (10W + 10 W )                                                                     | 20 W (10W + 10 W )                                                                          |
| TV System              |                     | PAL/SECAM, BG/DK/I, NTSC(AV)                                                           |                                                                                             |
| Connection terminals   | USB                 | USB 2.0 TYPE A Connectors x 2 ,<br>(DC 5 V, MAX 500 mA)                                |                                                                                             |
|                        | LAN                 | RJ45 x 1                                                                               |                                                                                             |
|                        | ANTENNA             | Aerial connector x 1                                                                   |                                                                                             |
|                        | SPDIF               | SPDIF x 1                                                                              |                                                                                             |
|                        | HDMI input          | HDMI connector x 2                                                                     |                                                                                             |
|                        | AV IN               | AV IN x 1                                                                              |                                                                                             |
|                        | HEADPHONE           | HEADPHONE x 1                                                                          |                                                                                             |
| Connectivity           | WiFi Type           | 802.11a/b/g/n/ac 2.4G/5G 2T2R,Build-in                                                 |                                                                                             |
|                        | Bluetooth Ver.      | Integrated Bluetooth V5.0                                                              |                                                                                             |

### Note:

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## Specifications

| Model No.              |                     | TH-32MS680DX                                                                          | TH-43MS680DX                                                                                |
|------------------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Power Source           |                     | 110 – 240 V ~ 50/60 Hz                                                                | 110 – 240 V ~ 50/60 Hz                                                                      |
| Power Consumption      | Power Rating        | 50W                                                                                   | 75W                                                                                         |
|                        | Standby condition   | < 0.5 W                                                                               | < 0.5 W                                                                                     |
| Display panel          | Visible screen size | 80 cm                                                                                 | 108 cm                                                                                      |
|                        | Number of pixels    | 1366(W)x768(H)                                                                        | 1920(W)x1080(H)                                                                             |
| Dimensions (L x B x H) |                     | 71.57cm x18.4cm x 47.03cm<br>(With Pedestal)<br>71.57cm x8.45cm x 42.4cm<br>(TV only) | 95.47 cm x21.04cm x 60.22cm<br>(With Pedestal)<br>95.47 cm x 8.69 cm x 55.64cm<br>(TV only) |
| Net weight             |                     | 4.0 kg Net (With Pedestal)<br>3.9 kg Net (TV only)                                    | 6.1 kg Net (With Pedestal)<br>6.0 kg Net (TV only)                                          |
| Gross Weight           |                     | 5.5 kg                                                                                | 8.7 kg                                                                                      |
| Sound                  | Speaker             | 6 Ω                                                                                   | 6 Ω                                                                                         |
|                        | Audio output        | 20 W (10W + 10 W )                                                                    | 20 W (10W + 10 W )                                                                          |
| TV System              |                     | PAL/SECAM, BG/DK/I, NTSC(AV)                                                          |                                                                                             |
| Connection terminals   | USB                 | USB 2.0 TYPE A Connectors x 2 ,<br>(DC 5 V, MAX 500 mA)                               |                                                                                             |
|                        | LAN                 | RJ45 x 1                                                                              |                                                                                             |
|                        | ANTENNA             | Aerial connector x 1                                                                  |                                                                                             |
|                        | SPDIF               | SPDIF x 1                                                                             |                                                                                             |
|                        | HDMI input          | HDMI connector x 2                                                                    |                                                                                             |
|                        | AV IN               | AV IN x 1                                                                             |                                                                                             |
|                        | HEADPHONE           | HEADPHONE x 1                                                                         |                                                                                             |
| Connectivity           | WiFi Type           | 802.11a/b/g/n/ac 2.4G/5G 2T2R,Build-in                                                |                                                                                             |
|                        | Bluetooth Ver.      | Integrated Bluetooth V5.0                                                             |                                                                                             |

### Note:

1. Design and Specifications are subject to change without notice.
2. Weight and Dimensions shown herein are approximate
3. The graphics in this manual are only for reference.
4. Your TV may be slightly different from that shown in this manual.
5. In dry environment due to static electricity, the product may restart and return to the main OSD interface, USB player interface or the previous source mode. It is normal and please continue to operate the TV. .



Panasonic Life Solutions India Pvt. Ltd.      **CERTIFICATE OF WARRANTY**

**Customer Copy**  
Sr.No.A -

Dear Customer,

Thank you for buying this Panasonic product. This card entitles you to enjoy 1 year warranty on the product.

|                  |   |        |              |
|------------------|---|--------|--------------|
| Product          | : | LED TV |              |
| Model No.        | : |        | Sl. No. .... |
| Customer Name    | : |        |              |
| Address          | : |        |              |
| Tel. No.         | : |        |              |
| Date of Purchase | : |        |              |
| Invoice No.      | : |        |              |

Dealer Name and Address:

**Help Line** : 080-69841333, Email : [helpline@in.panasonic.com](mailto:helpline@in.panasonic.com)  
**Regd. Office:** Panasonic Life Solutions India Private Limited, "12th Floor, Ambience Tower, Ambience Island, NH-8, Gurgaon-122002, Haryana"



Scan QR Code for Service Assistance  
WhatsApp No. +91-9311211333

## Warranty Card and Information

Panasonic Life Solutions India Pvt.Ltd., having its registered office at 12<sup>th</sup> Floor, Ambience Tower, Ambience Island, NH8, Gurgaon - 122002, Haryana (herein after referred to as "Company", or "Our" or "We"), warrants this Product to be free from manufacturing defects during the Warranty Period as defined below. This non-transferable warranty is only for the first and user on purchase from the Company or any of its Authorized Dealer. Company's Authorized Dealer/ Service Centers will repair this Product on the terms and conditions below:

### Warranty Period

The Warranty Period is for 12 months from the date of purchase of this Product mentioned on Original Purchase Invoice, provided always that this Warranty Card is duly filled and bears the rubber stamp, date and signature of our Authorized dealer. Warranty shall not be considered valid if the above referred documents are not presented or if the information contained is incomplete or the Warranty Card is found tampered.

### Warranty Terms

1. Warranty takes care of any manufacturing defect or breakdown of the Product which occurs while using the Product in normal condition (functional defect) within the Warranty Period. Company at its sole discretion will repair or replace defective parts of the Product with a substitute without affecting performance of the Product.
2. This warranty is confined to the first purchaser of this Product only. This warranty is valid and applicable only in respect of Products which are purchased in India from authorized channel of the Company. Parallel Imports are excluded from this warranty.
3. Repair or replacement will be carried out through the Company's Authorized Service Centre or its Dealer's Service Centre. All parts removed/ replaced by the Company shall be the property of the Company. In the event the Company carries out repairs or replacement of any part during the said Warranty Period, the Company's warranty shall thereafter continue only for the remaining period of the warranty. Any repairs done or replacement provided shall not extend the Warranty Period for any of the Products. The Warranty Period is limited as provided hereunder from the date of Purchase Invoice irrespective of the period the Product unit was not in use; was not giving proper performance; was under breakdown; or was under repair(s) by Company's Authorized Service Centre.
4. This warranty shall not apply under following circumstances:-
  - (a) Installation/ repair is carried out by any unauthorized organization/ which are other than those specified by the Company;
  - (b) Any damages resulting from un-authorized adaptations or adjustments to the Product.
  - (c) If the Product or part(s) Serial No. on the Product is mutilated, defaced or altered;
  - (d) Any damage to the Product including but not limited to damage by animals (e.g. Rat, lizard, insect, ants, etc.), input voltage beyond specifications, fire, lightning, water ingress, dust, riots, acts of God (like flood, earthquake, cyclone, storm, etc.);
  - (e) Use of harmful chemicals; improper heat load, usage of Product in an abnormally corrosive alkaline/acidic atmosphere;
  - (f) Any change or defect resulting due to improper maintenance or any use contrary to the operations specified in the User's Manual supplied with the Product;
  - (g) Damage or loss arising out of mishandling or incurred during transit;
  - (h) Display may occasionally have dots missing or permanently lit. This does not necessary indicate a fault;
  - (i) Any form of damage caused by using external stabilizer;
  - (j) Installation/ Demo service is the privileged service offered by the Company, which is valid for a one month from date of purchase of the Product.
5. Deficiency in the product performance due to Signal reception through third party apparatus or equipment or any third party software and/ or media which does not confirm to the specifications mentioned in the Operating Manuals not warranted by the Company.
7. The Company shall not be liable or be deemed to be in default for any non-functional or abnormal function with any external device connected with our Product.
8. In case of any additional promotional warranty offered and customer purchase during such offer promotional period, the said additional warranty offered will be applicable only on Panel screen for repair.
9. While the Company will make every effort to carry out repairs/ replacement of parts at the earliest, it is however made explicitly clear that the Company is under no obligation to do so in a specified period of time.
10. Any defect in the electrical installation or wiring at site has to be rectified by the Customer as per the recommendation of Company's Authorized service representative. The Customer shall bear the cost of such rectification.
11. In the event of any unforeseen circumstance, and spares not being available, Company's prevailing depreciation rules will be binding on the Customer to accept as commercial solution in lieu of repairs, the depreciation rules will be applicable after one year of purchase of the Product.
12. The Company shall not be held liable or be deemed to be in default for any delay or failure in performance resulting directly or indirectly from causes beyond its reasonable control including delay in repairing due to non-availability of any component or accessories, labor problem, restrictions and regulations of the government, public movement, war and any unavoidable circumstances, specially vis-a-vis the import of supplies and raw material or if the Company is otherwise prevented from performing its functions under this Warranty.
13. For Product units installed outside the municipal limits of the Company or Authorized Dealer's service center, all expenses incurred in to & fro transportation of unit, parts, lodging, boarding, conveyance and other incidental charges will be borne by and payable in advance by the Customer.
14. To the extent permitted by law, this Warranty and the remedies set forth herein are exclusive and in lieu of all other warranties, remedies and conditions, whether oral, written, statutory, express or implied. The Company disclaims all statutory and implied warranties, including without limitation, warranties of merchantability and fitness for a particular purpose and warranties against hidden or latent defects, to the extent permitted by law. In so far as such warranties cannot be disclaimed, Company limits the duration and remedies of such warranties to the duration of this express Warranty and, at Company's option, the repair or replacement services described herein.
15. The Company shall not be held liable for any indirect, special, incidental, punitive, exemplary, consequential or economic damage or loss (including but not limited to loss of profits, data, anticipated savings, personal injury and goodwill or business opportunities arising from or related to the Product). The Company's liability under or in relation to this Warranty shall be limited to the purchase price of the Product or the Maximum Retail Price tiered, as stated on the packaging of the Product, whichever is lower.
16. This Product is meant for home entertainment purpose. Warranty is not valid if the Product is used for the commercial purpose.
17. It is an obligatory condition of this warranty that any changes in the location of the Product unit or ownership thereof must be intimated in writing to the Company within 10 days in advance and only Company's Authorized Dealer /Service Centre shall remove and install the Product units on chargeable basis, failing which, the warranty shall not be applicable.
18. The Courts at New Delhi shall have exclusive jurisdiction over matters covered or flowing from this Warranty.
19. In the event of any difference or dispute arising with reference to the terms and conditions of this Warranty, or their interpretation, the same shall be referred to a sole arbitrator, who shall be appointed by the Company. The decision of the sole arbitrator shall be final and binding on the Parties. Such arbitration proceedings shall be held at New Delhi and provision of the Arbitration & Conciliation Act 1996 shall apply to the arbitration proceedings.
20. For complete warranty terms and conditions, visit <http://www.panasonic.com/in/support/>

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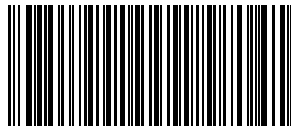
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