LG
Life's Good

OWNER'S MANUAL

LG Digital Signage

(MONITOR SIGNAGE)

Please read this manual carefully before operating your set and retain it for future reference.

49KE5E

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ENGLISH

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WARNING - This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

SAFETY PRECAUTIONS

Please read these safety precautions carefully before using the product.

⚠ WARNING

If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

⚠ CAUTION

If you ignore the caution message, you may be slightly injured or the product may be damaged.

⚠ WARNING

- Indoor Use Only.

Precautions In Installing the Product

⚠ WARNING

- Keep away from heat sources like electrical heaters.
  - Electrical shock, fire, malfunction, or deformation may occur.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children.
  - Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- Do not put heavy objects on the product or sit upon it.
  - If the product collapses or is dropped, you may be injured. Children must pay particular attention.
- Do not leave the power or signal cable unattended on the pathway.
  - The passerby can trip or fall, which can cause electrical shock, fire, product breakdown, or injury.
- Install the product in a neat and dry place.
  - Dust or moisture can cause electrical shock, fire or product damage.
- If you can smell smoke or other odors or hear a strange sound unplug the power cord and contact the service center.
  - If you continue to use without taking proper measures, electrical shock or fire can occur.
- If you dropped the product or the case is broken, turn off the product and unplug the power cord.
  - If you continue to use without taking proper measures, electrical shock or fire can occur. Contact the service center.

- Do not drop an object on or apply impact to the product. Do not throw any toys or objects on the product screen.
  - It can cause injury to human, problem to product and damage the display.
- Do not let the product fall or drop when connecting it with an external device.
  - This may cause injury and/or damage to the product.
- When connecting it to a game device, keep a distance of four times the diagonal measurement of the screen from the device.
  - If the product falls because of the short cable, this may cause injury and/or damage to the product.
- Leaving a fixed image on the screen for a long time may cause damage to the screen and cause image retention. To use the product for a long period of time, use a screen saver on the PC or utilize the residual image prevention function on the product, and when the product is not used, turn off the power. Image retention and related problems are not covered by the warranty on this product.
- Do NOT install this product on a wall where there is high risk of exposure to oil fumes or mist.
  - This may damage product and cause it to fall.

⚠ CAUTION

- Make sure the product ventilation holes are not blocked. Install the product in a suitably wide place (more than 100 mm from the wall).
  - If you install the product too close to the wall, it may be deformed or fire can break out due to internal heat.
- Do not block the ventilation hole of the product by a tablecloth or curtain.
  - The product can be deformed or fire can break out due to overheating inside the product.
- Install the product on a flat and stable place that has no risk of dropping the product.
  - If the product is dropped, you may be injured or the product may be broken.
- Install the product where no EMI occurs.
- Keep the product away from direct sunlight.
  - The product can be damaged.
- If you install the product in a place that does not meet the recommended conditions, this may cause serious damage to the product's picture quality, life cycle, and appearance. Please check with LG or a qualified installer before installing. This caution applies to a place where there is an abundance of fine dust or oil mist, chemical substances are used, the temperature is very high or low, the humidity is very high, or the product is likely to remain turned on for a long period of time (airport and train station), failure to do so will invalidate the warranty.
- Do not install the product in an area with poor ventilation (e.g.on a bookshelf, in a closet) or outside and avoid placing on cushions or carpets.
- In addition, do not install it where there are heating objects such as lighting equipment.

Precautions for using AC Adapter and Electrical Power

⚠ WARNING

- If water or any foreign substance goes inside the product (TV, monitor, power cord, or AC adapter), disconnect the power cord immediately and contact the service center.
  - Otherwise, this may cause a fire or electric shock due to damage to the product.
- Do not touch the power plug or AC adapter with wet hands. If the pins of the plug are wet or dusty, wipe and dry them before use.
  - Otherwise, this may cause a fire or electric shock.
- Make sure to completely insert the power cord into the AC adapter.
  - If loosely connected, the poor connection may cause a fire or electric shock.
- Be sure to use power cords and AC adapters provided or approved by LG Electronics, Inc.
  - The use of non-approved products may cause a fire or electric shock.
- When unplugging the power cord, always pull it by the plug. Do not bend the power cord with excessive force.
  - The power line can be damaged, which may cause electric shock or fire.
- Be careful not to step or place heavy objects (electronic appliances, clothing, etc.) on the power cord or AC adapter. Be careful not to damage the power cord or AC adapter with sharp objects.
  - Damaged power cords may cause a fire or electric shock.
- Never disassemble, repair or modify the power cord or AC adapter.
  - This may cause a fire or electric shock.
- Make sure to connect the power cable to the grounded current.
  - You may be electrocuted or injured.
- Use the rated voltage only.
  - The product can be damaged, or you may be electrocuted.
- In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous.
  - It can cause electric shock.
- Do not connect several extension cords, electrical appliances, or electrical heaters to a single outlet. Use a power strip with a grounding terminal designed for exclusive use with the computer.
  - A fire can break out due to overheating.
- Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off.
  - You may be electrocuted due to excess moisture.

- If you don't intend to use the product for a long time, unplug the power cable from the product.
  - Covering dust can cause a fire, or insulation deterioration can cause electric leakage, electric shock or fire.
- Fix the power cable completely.
  - If the power cable is not fixed completely, a fire can break out.
- Do not insert a conductor (like a metal chopstick) into one end of the power cable while the other end is connected to the input terminal on the wall. Additionally, do not touch the power cable right after plugging into the wall input terminal.
  - You may be electrocuted.
- The appliance coupler is used as the disconnect device.
- Please make sure the device is installed near the wall outlet to which it is connected and that the outlet is easily accessible.
- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.

⚠ CAUTION

- Be sure to keep the outlet, AC adapter, and pins of the power plug clean from dust etc.
  - This may cause a fire.
- Do not unplug the power cord while the product is in use.
  - Electrical shock can damage the product.
- Use only the power cord supplied with the unit. If you use another power cord, make sure that it is certified by the applicable national standards when not provided by the supplier. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized repair service provider for a replacement.

Precautions For Moving the Product

WARNING

- Make sure to turn off the product.
  - You may be electrocuted or the product can be damaged.
- Make sure to remove all cables before moving the product.
  - You may be electrocuted or the product can be damaged.
- Make sure the panel faces forward and hold it with both hands to move. If you drop the product, the damaged product can cause electric shock or fire. Contact an authorized the service center for repair.
- Make sure the product is turned off, unplugged, and all cables have been removed. It may take 2 or more people to carry larger apparatus. Do not press against or put stress on the front panel of the apparatus.

CAUTION

- Do not shock the product when moving it.
  - You may be electrocuted or the product can be damaged.
- Do not dispose the product-packing box. Use it when you move.

Precautions For Using the Product

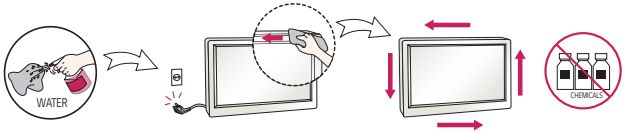
⚠ WARNING

- Do not disassemble, repair or modify the product at your own discretion.
  - Fire or electric shock accident can occur.
  - Contact the service center for check, calibration or repair.
- When the display is to be left unattended for an extended period of time, unplug it from the wall outlet.
- Keep the product away from water.
  - Fire or electric shock accident can occur.
- Do not shock or scratch the front and sides of the screen with metallic objects.
  - Otherwise, it may cause damage to the screen.
- Avoid high temperatures and humidity.

⚠ CAUTION

- Do not put or store inflammable substances near the product.
  - There is a danger of explosion or fire due to careless handling of the inflammable substances.
- When cleaning the product, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not clean with a wet cloth or spray water or other liquids directly onto the product. An electric shock may occur. (Do not use chemicals such as benzene, paint thinners, or alcohol.)
- Take a rest from time to time to protect your vision.
- Keep the product clean at all times.
- Take a comfortable and natural position when working with a product to relax the muscles.
- Take a regular break when working with a product for a long time.
- Do not press strongly upon the panel with a hand or sharp object such as nail, pencil, or pen, or make a scratch on it.
- Keep the proper distance from the product.
  - Your vision may be impaired if you look at the product too closely.
- Set the appropriate resolution and clock by referring to the User's Guide.
  - Your vision can be impaired.
- Use authorized detergent only when cleaning the product. (Do not use benzene, thinner, or alcohol.)
  - Product can be deformed.
- Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).
- Batteries should not be exposed to excessive heat. For example, keep away from direct sunlight, open fireplace, and electric heaters.
- Do NOT place non-rechargeable batteries in charging device.
- Using headsets (earphones) for a long time or listening loudly can cause damage to your hearing.

- Spray water onto a soft cloth 2 to 4 times, and use it to clean the front frame; wipe in one direction only. Too much moisture may cause staining.



- Do not use products using high voltage around the Monitor. (e.g., a bug zapper)
  - Monitor may have a malfunction if it receives an electrical shock.

Mounting on a Wall

- Do NOT install this product by yourself as you may injure yourself or cause damage to product. Please contact service personnel authorised by manufacturer.

LICENSES

Supported licenses may differ by model. For more information of the licenses, visit *www.lg.com*.



The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.

ASSEMBLY AND PREPARATION

⚠ CAUTION

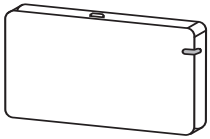
- Always use genuine components to ensure safety and product performance.
- The product warranty will not cover damage or injury caused by the use of counterfeit components.

NOTE

- The accessories provided with your product may vary depending on the model or region.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.
- SuperSign Software & Manual
  - Downloading from the LG Electronics website.
  - Visit the LG Electronics website (*http://partner.lge.com*) and download the latest software for your model.
- The warranty will not cover any damage caused by using the product in an excessively dusty environment.

Optional Accessories

Without prior notice, optional accessories are subject to change to improve the performance of the product, and new accessories may be added. The illustrations in this manual may differ from the actual product and accessories.

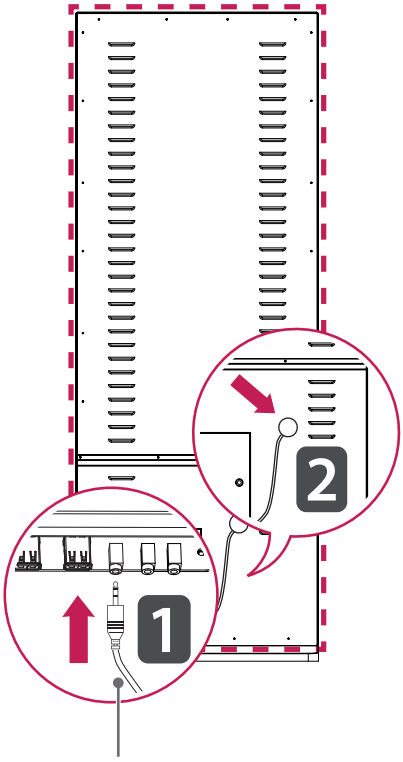
Wi-Fi Dongle kit

AN-WF500

NOTE

- Cable holder/Cable tie may not be available in some areas or for some models.
- Optional accessories are available for some models. If necessary, please purchase them separately.
- Please turn off the power before connecting or removing the Wi-Fi dongle kit.

Using the IR Receiver

This allows a remote control sensor to be placed in a custom location. Then that display can control other displays via an RS-232C cable. Install the IR receiver towards the front of the set.

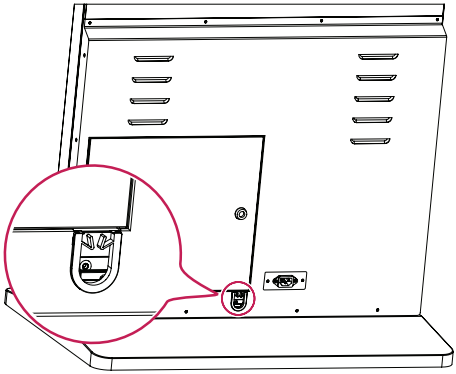


NOTE

- When you see from the back of the set, if the IR receiver cable does not face front, the signal reception range may shorten.
- The IR receiver is made with a magnet. It is detachable at the back (wall installation) of the set.
- Make sure that you unplug the power cord before connecting or removing the IR Receiver.

NOTE

- Take IR cable out through cable holder. (Refer to below picture)
- If you use a media player, it should be installed in the inner space of the set
  - For safety, the set must not connect with an outside power source or other electronic machines.

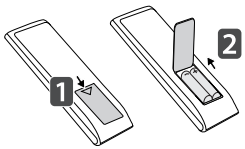


CAUTION

- Disconnect the power cord before moving or installing the monitor to avoid risk of electric shock.
- Make sure to fix the stand on the floor since the set may fall when pushed. LG Electronics is not liable for any damages of the product or casualties due to not following this instruction.
- Do not over tighten the screws as this may damage the monitor and void your warranty.

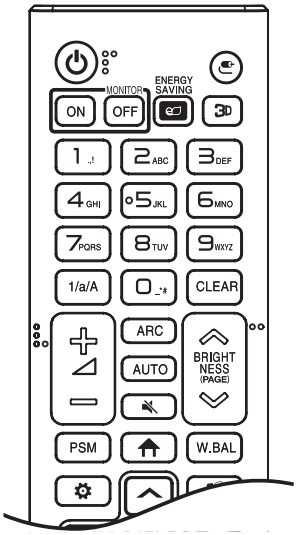
REMOTE CONTROL

The descriptions in this manual are based on the buttons on the remote control. Please read this manual carefully to use the monitor correctly. To install batteries, open the battery cover, place batteries (1.5 V AAA) matching ⊕ and ⊖ terminals to the labels inside the compartment, and close the battery cover. To remove the batteries, perform the installation actions in reverse. The illustrations may differ from the actual accessories.



⚠ CAUTION

- Do not mix old and new batteries, as this may damage the remote control.
- Be sure to point the remote control toward the remote control sensor on the monitor.
- Some features of the remote control may not be supported in certain models.



(POWER) Turns the monitor on or off.

MONITOR ON Turns the monitor on.

MONITOR OFF Turns the monitor off.

ENERGY SAVING Adjusts the brightness of the picture to reduce energy consumption.

(INPUT) Selects the input mode.

3D Used for viewing 3D videos.

1/a/A Toggles between numerical and alphabetical.

Number and Alphabet buttons Enters numerical or alphabetical characters depending upon the setting.

CLEAR Deletes the entered numerical or alphabetical character.

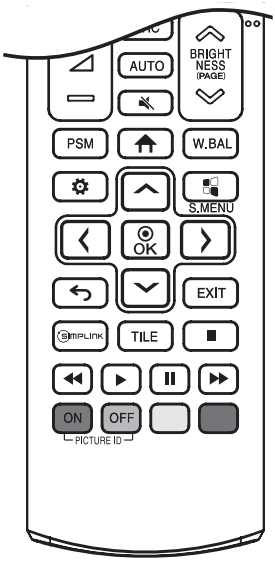
Volume Up/Down Button Adjusts the volume.

ARC Selects the Aspect Ratio mode.

AUTO Automatically adjusts picture position and minimizes image instability (available for RGB input only).

(MUTE) Mutes all sounds.

BRIGHTNESS Adjusts the brightness of the display. PAGE function is not supported in this model.



PSM Selects the Picture Mode.

(HOME) Activates the Launcher.

W.BAL Enters the White Balance menu.

(SETTINGS) Accesses the main menus or saves your input and exit menus.

S.MENU SuperSign menu key.

Navigation Buttons Scrolls through menus or options.

Selects menus or options and confirms your input.

(BACK) Allows you to move back one step in the user interaction function.

EXIT Quit all OSD tasks and applications.

Allows you to control various multimedia devices to enjoy multimedia simply by using the remote control through the SimpLink menu.

TILE Selects the TILE Mode.

PICTURE ID ON/OFF When the Picture ID number matches the Set ID number, you can control whichever monitor you want in multi-display format.

USB Menu Control Buttons Controls media playback.

Trick key May not be supported on some models.

Displaying the Device Name Connected to an Input Port

Display which devices are connected to which external input ports.

1 Access the Input list screen and press the red (input label) button on the remote control.

2 You can assign an input label for every input except USB.

NOTE

- External inputs supported: HDMI, DVI-D
- Labels available: PC, DTV
- The input labels are displayed on the Input Label screen or at the top left of the screen when you change the external input setting.
- For DTV/ PC-compatible signals, such as 1080p 60 Hz, the screen settings may change according to the input label. The Just Scan option is available if a PC is connected as an external device.

White Balance Adjust Menu

Press the **W.BAL** button on the remote control.

- [R-Gain]: Adjusts the level of red. The higher the number, the redder the set. Decrease the number if the screen looks too red.
- [G-Gain]: Adjusts the level of green. The higher the number, the greener the set. Decrease the number if the screen looks too green.
- [B-Gain]: Adjusts the level of blue. The higher the number, the bluer the set. Decrease the number if the screen looks too blue.
- [Backlight]: Adjusts the brightness. The higher the number, the brighter the set. This works in the same way as the backlight of the user menu.
- [Reset]: Resets the white balance value to the factory settings.

MAKING CONNECTIONS

You can connect various external devices to your monitor. Change the input mode and select the external device you want to connect. For more information about external device connections, see the user manual provided with each device.

Connecting to a PC

Some of the cables are not provided.

This monitor supports the Plug and Play* feature.

* Plug and Play: a feature that enables a PC to recognize devices attached by the user without device configuration or user intervention when powering up.

External Device Connection

Connect a HD receiver, DVD, or VCR player to the monitor and select an appropriate input mode.

Some of the cables are not provided. For the best picture and sound quality, connecting external devices to your monitor using HDMI cables is recommended.

NOTE

- For the best image quality, using the monitor with HDMI connection is recommended.
- To comply with the specifications of the product, use a shielded interface cable with ferrite core, such as a DVI-D/HDMI cable.
- If you turn the monitor on when the set is cold, the screen may flicker. This is normal.
- Sometimes red, green, or blue spots may appear on the screen. This is normal.
- Use a High Speed HDMI®/™ cable.
- Use a certified cable with the HDMI logo attached. If you do not use a certified HDMI cable, the screen may not display or a connection error may occur.
- Recommended HDMI Cable Types
  - High-Speed HDMI®/™ Cable
  - High-Speed HDMI®/™ Cable with Ethernet
- If you cannot hear any sound in HDMI mode please check your PC settings. Some PCs require you to manually change the default audio output to HDMI.
- If you want to use HDMI-PC mode, you must set your PC/DTV to PC mode.
- You may experience compatibility issues if you use HDMI-PC mode.
- Make sure the power cable is disconnected.
- If you connect a gaming device to the monitor, use the cable provided with the gaming device.
- High Speed HDMI®/™ cables transmit a HD signal up to 1080p and higher.
- ETHERNET supports only 100 BASE-T.

CAUTION

- Connect the signal input cable and tighten it by turning the screws clockwise.
- Do not press the screen with your finger for a prolonged period as this may result in temporary distortion on the screen.
- Avoid displaying static images on the screen for a long period of time to prevent image retention. Use a screensaver if possible.
- A wireless communication device near your monitor can affect the image.

Using the Input List

(HOME) →

- HDMI → DVI-D

TROUBLESHOOTING

No image is displayed.

Problem	Action
Is the product power cord connected?	• Check if the power cord is correctly plugged into the power outlet.
Does the “Invalid Format” message appear?	• The signal from the PC (Graphics card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this manual.
Does the “No Signal” message appear?	• The signal cable between PC and product is not connected. Check the signal cable. • Access the input menu to check the input signal.

The Unknown Product message appears when the product is connected.

Problem	Action
Did you install the driver?	• Check if the Plug and Play function is supported by referring to the graphics card user manual.

The screen image looks abnormal.

Problem	Action
Is the screen position wrong?	• Check if the graphics card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the [Control Panel] → [Display] → [Setting] menu. (The settings may differ depending on your operating system.)
The screen is displayed abnormally.	• The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal.

After-image appears on the product.

Problem	Action
After-image appears when the product is turned off.	• If you use a fixed image for a long time, the pixels may be damaged. Use the screen-saver function. • When a dark image is displayed on the screen after an image with high contrast (black and white or gray), this may cause image sticking. This is normal for LCD screen products.

The audio function does not work.

Problem	Action
No sound?	• See if the audio cable is connected properly. • Adjust the volume. • See if the sound is set properly.
Sound is too dull.	• Select the appropriate equalizer sound.
Sound is too low.	• Adjust the volume.

Screen color is abnormal.

Problem	Action
Screen has poor color resolution (16 colors).	• Set the number of colors to more than 24 bits (true color). Select [Control Panel] → [Display] → [Settings] → [Color Table] in Windows. (The settings may differ depending on your operating system.)
Screen color is unstable or mono-colored.	• Check the connection status of the signal cable. Or, re-insert the PC graphics card.
Do black spots appear on the screen?	• Several pixels (red, green, blue, white, or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. This is not a malfunction of the LCD.

The operation does not work normally.

Problem	Action
The power suddenly turned off.	• Is the Timer set? • Check the power control settings. Power interrupted.

⚠ CAUTION

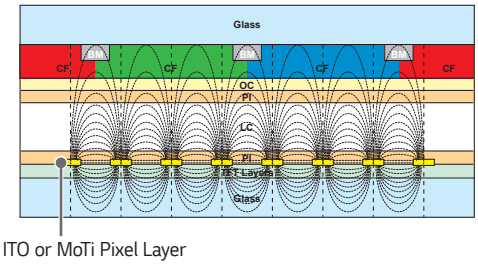
- Image sticking does not occur when using constantly changing images but may occur when using a fixed image for an extended period of time. Therefore, it is recommended that you use the instructions below to decrease the likelihood of image sticking occurring when using a fixed image. It is recommended that you change the screen at least once every 12 hours at the very minimum; if done more frequently, the prevention of image sticking is more effective.

Recommended operating conditions

1 Change the background and the character colors using the same time interval.



When changing colors, using complementary colors helps to prevent image sticking.



2 Change the image using the same time interval.



Make sure that the characters or images before changing the image remain in the same location after changing the image.

What is image sticking?

When the LCD panel displays a static image for an extended period of time, it can cause a voltage difference between the electrodes that operate the liquid crystals. When the voltage difference between the electrodes builds up over time, liquid crystals have a tendency to remain aligned in one direction. During this process, a previously displayed image remains visible. This phenomenon is referred to as image sticking.

PRODUCT SPECIFICATIONS

The product specifications below may be changed without prior notice due to upgrade of product functions.
" ~ " refers to alternating current (AC), and " ⎓ " refers to direct current (DC).

LCD screen	Screen type	Thin Film Transistor (TFT) Liquid Crystal Display (LCD) Screen
Video signal	Maximum resolution	1920 x 1080 @ 60 Hz - This may not be supported on some OS or graphics card types.
	Recommended resolution	HDMI, DVI-D: 1920 x 1080 @ 60 Hz - This may not be supported on some OS or graphics card types.
	Horizontal frequency	Analog: 30 kHz to 83 kHz Digital: 30 kHz to 83 kHz
	Vertical frequency	Analog: 50 Hz to 75 Hz Digital: 56 Hz to 60 Hz
	Synchronization	Separate Sync, Digital
Input/output ports	HDMI, DVI-D IN, LAN, USB, EXT IR IN, Audio IN/OUT, RS-232C IN, AC IN	
Embedded battery		Applied
Environmental Conditions	Operating Temperature Operating Humidity	0 °C to 40 °C 10 % to 80 %
	Storage Temperature Storage Humidity	-20 °C to 60 °C 5 % to 85 %

* Applicable only for models that support the speakers

Audio	RMS Audio Output	0.500 Vrms + 0.500 Vrms (R+L)
	Input Sensitivity	0.7 Vrms
	Speaker Impedance	8 Ω

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LCD screen	Pixel pitch	0.55926 mm (H) X 0.55926 mm (V)
Power	Rated power	AC 100-240 V~ 50/60 Hz 1.0 A
	Power consumption	On Mode: 85 W (Typ.) Off Mode: ≤ 0.5 W
Dimensions (Width x Height x Depth) / Weight	Head	716.6 mm x 1855 mm x 77 mm / 45.8 kg
	Head + Stand	716.6 mm x 1900 mm x 480 mm / 58.3 kg

HDMI/ DVI-D (PC) Support mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 x 480	31.469	59.94
800 x 600	37.879	60.317
1024 x 768	48.363	60
1280 x 720	44.772	59.855
1366 x 768	47.7	60
1280 x 1024	63.981	60.02
1680 x 1050	65.290	59.954
1920 x 1080	67.5	60

HDMI/ DVI-D (DTV) Support Mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
480/60p	31.5	60
576/50p	31.25	50
720/50p	37.5	50
720/60p	45	60
1080/50i	28.1	50
1080/60i	33.75	60
1080/50p	56.25	50
1080/60p	67.5	60

NOTE

- Resolutions available for the Input Label option in HDMI/ DVI-D input modes.
  - PC resolutions: 640 x 480 / 60 Hz, 1280 x 720 / 60 Hz, 1920 x 1080 / 60 Hz
  - DTV resolutions: 480p, 720p, 1080p
- Vertical frequency: The product display functions by the screen image changing dozens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the number of image displays per second. The unit is Hz.
- Horizontal frequency: The horizontal interval is the time taken to display one horizontal line. When 1 is divided by the horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.



Make sure to read the Safety Precautions before using the product.
The model and serial numbers of the SET are located on the back and one side of the SET. Record it below should you ever need service.

MODEL _____

SERIAL _____

Temporary noise is normal when powering ON or OFF this device.