The color and the appearance may differ depending on the product, and the content in the manual is subject to change without prior notice to improve the performance.

Recommended hours of use per day of this product is under 16 hours.
If the product is used for longer than 16 hours a day, the warranty may be void.
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Safety Precautions

The following safety instructions are to ensure your personal safety and prevent property damage. Please read the following to ensure the proper use of the product.

Safety symbols

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<th>Name</th>
<th>Meaning</th>
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<td>Warning</td>
<td>A serious or fatal injury may result if instructions are not followed.</td>
</tr>
<tr>
<td>!</td>
<td>Caution</td>
<td>Personal injury or damage to properties may result if instructions are not followed.</td>
</tr>
<tr>
<td>✕</td>
<td>Prohibition</td>
<td>Do NOT attempt.</td>
</tr>
<tr>
<td>!</td>
<td>Instruction</td>
<td>Follow directions.</td>
</tr>
</tbody>
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Electricity and Safety

⚠️ The following images are for reference only. Real-life situations may differ from what is shown in the images.

- **Warning**
  - Do not touch the power plug with wet hands. Otherwise, an electric shock may result.

- **Caution**
  - Do not bend or pull the power cable with force. Be careful not to leave the power cable under a heavy object. Product failure, an electric shock or fire may result from a damaged cable.

- **Prohibition**
  - Do not connect multiple products to a single power socket. Overheated power sockets may cause a fire.
Insert the power plug all the way in so it is not loose.
An unsecure connection may cause a fire.

Clean any dust around the pins of the power plug or the power socket with a dry cloth.
A fire may result.

Connect the power plug to a grounded power socket. (Except for devices that do not provide grounding)
An electric shock or injury may result.

Do not use a damaged power plug or a loose power socket.
An electric shock or fire may result.

Caution
Hold the plug when disconnecting the power cable from the power socket.
An electric shock or fire may result.

When connecting the power plug to the port, be sure to connect it completely.
If the power plug is not completely connected to the port, the plug may be unexpectedly disconnected, or there is a risk of overheating due to overcurrent, leading to safety accidents.

Only use the power cable provided with your product by Samsung. Do not use the power cable with other products.
An electric shock or fire may result.

Keep the power socket where the power cord is connected unobstructed.
When a problem occurs with the product, the power cord must be unplugged to completely cut off power to the product. The power is not completely cut off by using only the Power button on the body of the product.

Do not disconnect the power cable while the product is being used.
The product may become damaged by an electric shock.
Installation

Warning

Before moving the product, turn off the power switch and disconnect the power cable and all other connected cables.
Damage to the cable may cause a fire or electric shock.

When installing the product, keep it at a distance from the wall so that it is well ventilated.
An increased internal temperature may cause a fire.

Do not install the product in a poorly ventilated space such as bookcase or closet.
An increased internal temperature may cause a fire.

Keep the plastic packaging out of the reach of children.
Children's misuse of the plastic packaging may cause suffocation.

Do not install the power cable (DC power supply) and the product near head sources.
(Candles, mosquito repellents, cigarettes, sprays, heating devices, places exposed to direct sunlight, and more)

When installing the product, fix it firmly so that it does not fall.
If the product is not fixed firmly and a child touches the product while playing, the product may fall, causing damage to the product or injury to the child.

Do not install the product in a kitchen or near a kitchen counter.
Edible oil or oil vapor can damage or deform the product.

Have a technician install the wall-mount hanger.
Installation by an unqualified person can result in an injury. Only use approved cabinets.

If the product is installed in an unusual location, the surrounding environment may cause a serious quality problem. Therefore, be sure to contact Samsung Customer Service Center before installation.
(Places where many fine dusts are generated, places where chemicals are used, places with too high or low temperatures, places with a lot of moisture or water, transportation equipment such as vehicles, airports and stations used continuously for a long time, and more)
Caution

When lifting and moving the product, do not touch the screen display, and make sure that at least two people work together. The product may fall, causing personal injury or product damage.

Do not lay down the product on its front. The screen may become damaged.

Prolonged exposure to direct sunlight may discolor the surface of the screen display.

Operation

Warning

If the product generates a strange noise, a burning smell, or smoke, unplug the power plug immediately and contact your Samsung Customer Service Center. An electric shock or fire may result.

Keep the remote control batteries and the small accessories out of the reach of children. Ensure children do not swallow any of them. If children have had the battery in their mouths, consult your doctor immediately.

If the product is dropped or its appearance is damaged, turn off the power switch and disconnect the power cord. Then contact Samsung Customer Service Center. Continued use can result in an electric shock or a fire.

Do not move the product by pulling the power cord or any cable. Product failure, an electric shock or fire may result from a damaged cable.

Ensure the vents are not blocked by tablecloths or curtains. An increased internal temperature may cause a fire.
Do not apply an impact to the product.
- The screen display may be damaged.
- An electric shock or fire may result.

Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).
- If foreign substances enter the product, be sure to power off the product and disconnect the power cord. Then contact Samsung Customer Service Center.
- Product failure, an electric shock or fire may result.

Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.
- If foreign substances such as water enter the product, be sure to disconnect the power cord. Then contact Samsung Customer Service Center.
- Product failure, an electric shock or fire may result.

During a lightning or thunderstorm, power off the product and disconnect the power cord.
An electric shock or fire may result.

Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.
The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.

Do not hang on or climb on the product.
- The product may fall, causing personal injury or even death.
- Be especially careful that children do not hang on or climb on the product.

While the power plug is plugged into a power socket, do not insert a chopstick or other conductor into a remaining power socket. Also, after disconnecting the power plug from the power socket, do not touch the pins of the plug immediately. Otherwise, an electric shock may result.

There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.
- Contact Samsung Customer Service Center for repairs.
- An electric shock or fire may result.

If a gas leakage is found, do not touch the product or the power plug, and ventilate the room immediately.
Sparks can cause an explosion or fire.

Do not use humidifiers or stoves around the product.
An electric shock or fire may result.
Caution

Insert each battery so that its polarity (+, –) is correct.
If the polarity is not correct, the battery may rupture or the internal fluid may leak, causing contamination and damage to the surroundings, fire, or personal injury.

Do not place heavy objects on the product.
Product failure or personal injury may result.

When you do not use the product for a long time due to vacation or other reason, disconnect the power cord from the power socket.
Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.

Use the product at the recommended resolution and frequency.
Your eyesight may deteriorate.

The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.
The customer can return used or rechargeable batteries to a nearby public recycling center or to a store selling the same type of the battery or rechargeable battery.

Rest your eyes for more than 5 minutes for every 1 hour of product use.
Eye fatigue will be relieved.

Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
When you do not use the product for a long time, activate power-saving mode or set the screen saver to moving-picture mode.

Do not use or keep combustible spray or an inflammable substance near the product.
An explosion or fire may result.

Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.
Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.

Do not watch the product screen too closely and continuously for a long time.
Your eyesight may deteriorate.

Do not lift or move the product when it is in operation.

Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.

When using headphones or earphones, do not turn the volume too high or use them for a long time.
Damage to your hearing may result.
Cleaning

⚠️ Warning

Do not spray water or cleaner directly on the product.
- The product’s surface may be damaged, or the markings may be erased.
- An electric shock or fire may result.

⚠️ Caution

⚠️ When cleaning, be sure to disconnect the power plug and wipe gently with a soft and dry cloth such as superfine fibers or cotton flannels to prevent scratches.
- The product’s surface may be damaged, or the markings may be erased.
⚠️ Be sure to use a soft and dry cloth such as superfine fibers or cotton flannels because the surface of the product and the screen display are vulnerable to scratches.
- The product’s surface or the screen display can be easily scratched with foreign substances.
⚠️ Do not apply chemicals containing alcohol, solvent, or surfactant such as wax, benzene, thinner, pesticide, air freshener, lubricant, or cleaner to the product.
- The product’s exterior may be discolored or cracked, the surface of the panel may be peeled off, or the markings may be erased.

Storage and Maintenance

⚠️ If dust or dirt from the supplied pen remains on the protective glass, clean it referring to the instructions below.

Cleaning the exterior and display

Wipe the surface with a slightly wet, soft cloth, and then wipe with a dry cloth.

1. Wipe the surface with a slightly wet, soft cloth.
2. Wipe the surface with a dry cloth.
3. Repeat the process until the surface is clean.
Precautions

Do not scratch the screen with nails or sharp objects. Scratches may leave marks or damage the product.

Do not spray water directly on any part of the product. Product failure, an electric shock or fire may result from water that enters the product.

Due to the characteristics of high-glossy products, using a UV humidifier nearby may create white-colored stains on the product.

• Removing a sticker attached on the screen may leave residues. Clean the residues before watching the screen.
• Do not strongly press and rub the product. Damage to the product may result.
• Do not wipe the screen with chemicals. Product failure may result.
• Contact Customer Service Center if the inside of the product needs cleaning (service fee will be charged).

Precautions for Use

Be careful that if you use the supplied pen with a load exceeding 2.5 kg, scratches may occur on the protective glass.

If you use a ballpoint pen other than the supplied pen, be careful that the screen may be stained with ink or damaged.

📝 We recommend that you use the supplied pen. Do not use sharp, pointed objects other than the pen.
Contact the vendor where you purchased the product if any components are missing.

The appearance of the components may differ from the images shown.

A stand is not provided with the product. To install a stand, you can purchase one separately.

The RS232C adapter can be used to connect to another monitor using the D-SUB (9-pin) type RS232C cable.

Checking the Components

- Quick Setup Guide
- Warranty card (Not available in some locations)
- Regulatory guide
- Power cord
- Batteries (AAA X 2) (Not available in some locations)
- Remote Control
- RS232C(IN) adapter
- HOLDER-CABLE
- Touch Pen X 2
- USB cable
### Parts

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<th>Description</th>
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<td>Remote sensor</td>
<td>Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function.</td>
</tr>
<tr>
<td></td>
<td>Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.</td>
</tr>
<tr>
<td>Pen holder</td>
<td>Keep the touch pen in place.</td>
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<tr>
<td></td>
<td>Turns the product on or off.</td>
</tr>
<tr>
<td></td>
<td>Supported models: QB75H-TR</td>
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Use the remote control within 7 m to 10 m from the sensor on the product at an angle of 30° from the left and right.

- Store used batteries out of reach of children and recycle.
- Do not use a new and used battery together. Replace both batteries at the same time.
- Remove batteries when the remote control is not to be used for an extended period of time.
### Ports

The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

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<th>Description</th>
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<td>Connect to a USB memory device.</td>
</tr>
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<td></td>
<td>The USB ports on the product accept a maximum constant current of 1.0A. If</td>
</tr>
<tr>
<td></td>
<td>the maximum value is exceeded, USB ports may not work.</td>
</tr>
<tr>
<td>RJ45</td>
<td>Connects to MDC using a LAN cable. (10/100 Mbps)</td>
</tr>
<tr>
<td></td>
<td>Use Cat7(*STP Type) cable for the connection. *Shielded Twist Pair.</td>
</tr>
<tr>
<td>RS232C IN</td>
<td>Connects to MDC using an RS232C adapter.</td>
</tr>
<tr>
<td>DVI/MAGICINFO IN</td>
<td>DVI: Connects to a source device using a DVI cable or HDMI-DVI cable.</td>
</tr>
<tr>
<td></td>
<td>MAGICINFO IN: To use MagicInfo, make sure to connect the DP-DVI cable.</td>
</tr>
<tr>
<td></td>
<td>To activate MagicInfo, the IWB S5 function must be turned OFF. Please</td>
</tr>
<tr>
<td></td>
<td>contact a service center.</td>
</tr>
<tr>
<td>HDMI IN 1</td>
<td>Connects to a source device using a HDMI cable or HDMI-DVI cable.</td>
</tr>
<tr>
<td>HDMI IN 2</td>
<td></td>
</tr>
<tr>
<td>DP IN</td>
<td>Connects to a PC using a DP cable.</td>
</tr>
<tr>
<td>TOUCH OUT 1</td>
<td>Connects to a PC to use the touch function.</td>
</tr>
<tr>
<td>USB 2 (0.5A)</td>
<td>Connect to a USB memory device.</td>
</tr>
<tr>
<td></td>
<td>The USB ports on the product accept a maximum constant current of 0.5A. If</td>
</tr>
<tr>
<td></td>
<td>the maximum value is exceeded, USB ports may not work.</td>
</tr>
<tr>
<td>DVI/HDMI/AUDIO IN</td>
<td>Receives sound from a source device via an audio cable.</td>
</tr>
<tr>
<td>AUDIO OUT</td>
<td>Outputs sound to an audio device via an audio cable.</td>
</tr>
<tr>
<td>IR IN</td>
<td>Supplies power to the external sensor board or receives the light sensor</td>
</tr>
<tr>
<td></td>
<td>signal.</td>
</tr>
<tr>
<td>RS232C OUT</td>
<td>Connects to MDC using an RS232C adapter.</td>
</tr>
</tbody>
</table>
Tray

The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

- **USB (PC)**
  Connect to a USB memory device.

- **USB 3**

- **HDMI IN 3**
  Connects to a source device using a HDMI cable or HDMI-DVI cable.

- **TOUCH OUT 2**
  Connects to a PC to use the touch function.

- **QUICK MENU**
  If you press the QUICK MENU button while the screen is on, the main menu appears at the bottom of the screen.

- **POWER**
  Turns the product on or off.

- **A**
  Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function.
Using the touch function

- The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

1 To use the touch function with a Network box (sold separately) or computer connected to the product, use the USB cable to connect the TOUCH OUT port on the product to the USB port on the Network box or computer.

2 If you connect the TOUCH OUT port to a PC that uses multiple monitors, the touch function operates only on the primary monitor.

Anti-theft Lock

- An anti-theft lock allows you to use the product securely even in public places.
- The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details.
- The following images are for reference only. Real-life situations may differ from what is shown in the images.

To lock an anti-theft locking device:

1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
2 Put one end of the cable through the loop on the other end.
3 Insert the locking device into the anti-theft lock slot at the back of the product.
4 Lock the locking device.
   - An anti-theft locking device can be purchased separately.
   - Refer to the user guide provided with your anti-theft locking device for details.
   - Anti-theft locking devices can be purchased at electronics retailers or online.
Remote Control

Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.

A button without a description in the image below is not supported on the product.

- Power on the product.
- Power off the product.
- Number buttons: Enter the password in the OSD menu.
- Adjust the volume.
- Open Launch Button.
- Display or hide the onscreen display menu, or return to the previous menu.
- Mute the sound.
  - Unmuting the sound: Press MUTE again or press the volume control (VOL +) button.

Remote control button functions may differ for different products.
Remote control button functions may differ for different products.

Remove batteries when the remote control is not to be used for an extended period of time.

To place batteries in the remote control (AAA x 2)
Installing the Wall Mount

Installing the Wall Mount

- The wall mount kit (sold separately) allows you to mount the product on the wall.
- For detailed information on installing the wall mount, see the instructions provided with the wall mount.
- We recommend you contact a technician for assistance when installing the wall mount bracket.
- Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

Wall Mount Kit Specifications (VESAs)

Install your wall mount on a solid wall perpendicular to the floor. To install the product on the other wall area, contact the nearest agency. If you install the product on a slanted wall, it may fall and result in severe personal injury.

- Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that are longer than the standard length or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the product.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the product at more than a 15 degree tilt.
- Always have at least two people mount the product on a wall.
- Standard dimensions for wall mount kits are shown in the table below.

<table>
<thead>
<tr>
<th>VESA screw hole specs (A * B) in millimeters (inches)</th>
<th>Standard Screw</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 × 400 (15.7 × 15.7)</td>
<td>M8</td>
<td>4</td>
</tr>
</tbody>
</table>

Do not install your Wall Mount Kit while your product is turned on. It may result in personal injury due to electric shock.
Chapter 03
Using a touchscreen monitor

Touchscreen monitor

Control a PC by tapping the screen instead of using an input device such as a keyboard or mouse. The touch screen functions by detecting a minute electric current that runs through your body (capacitive). Make sure to use the surface of your finger tip when tapping the screen.

Read below before using the product

- Take extra care to ensure an electrical substance does not contact the screen. The screen may not function properly if there is static.
- Do not press hard on the touch screen with your finger tip. Do not use a sharp object when tapping the screen. The screen may break or get damaged.
- Do not tap the screen while wearing a glove, with a dirty finger, or using something sharp such as your fingernail or a ballpoint pen. The screen may not function properly.
- Take extra care to ensure the screen does not contact moisture. The touch sensor may not function properly.
- Displaying a still image on the screen for an extended period of time may cause after images (screen degradation) or stains. Switch off the screen when not in use.

- When using your palm as an eraser, put your fingers together.
Connecting the touchscreen monitor

Connecting to a PC

1. Connect your PC to the product using a HDMI or HDMI-DVI cable. ⚠ Connecting parts may differ in different products.

Connecting the devices using a HDMI cable

HDMI IN 1, HDMI IN 2, HDMI IN 3

Connecting the devices using a HDMI-DVI cable

HDMI IN 1, HDMI IN 2, HDMI IN 3

2. Connect the power cable from the product to the power outlet.

3. Connect the TOUCH OUT port on the product to a USB port on the PC using the USB cable. ⚠ TOUCH OUT1 operates when the current screen is set to HDMI 1, HDMI 2, DisplayPort, or DVI. ⚠ TOUCH OUT 2 operates when the current screen is set to HDMI 3.

Connecting to a laptop or tablet PC

A laptop or tablet PC can be connected to the product using the same method when connecting a desktop PC.

• If touchscreen control is not available after the devices are connected
  ⚠ Make sure to connect the HDMI or HDMI-DVI cable before connecting the USB cable.
  ⚠ If touchscreen control is still unavailable after the cables are connected properly, disconnect the USB cable and then connect it again.
Configuring the touchscreen monitor settings

To properly use the touch function of the product in Windows, go to Tablet PC Settings and calibrate the product.

- First connect the touchscreen monitor before configuring the following settings.
- The maximum number of touchscreen monitors that can be connected simultaneously varies, depending on the operating system and graphics card settings.
- If Tablet PC Settings is not found in the Control Panel, search for Search Control Panel for Tablet PC Settings.

Calibration

- Instructions below are for Windows 8. The same method applies to both Windows 7, Windows 8, and Windows 10.
- After changing the Picture Size from the OSD menu, you may need to calibrate the picture settings again.
- In the occurrence of an error during calibration, go to Tablet PC Settings \(\rightarrow\) the Display tab. Tap Reset, and calibrate again.

1. In the Display tab, select Setup under Configure.

2. Tap the page displayed on the product with your finger.
   - In dual monitor mode: If the following page does not appear on the product, press the Enter key to display the page.

   Touch this screen to identify it as the touchscreen.

   If this is not the Tablet PC screen, press Enter to move to the next screen. To close the tool, press Esc.
3. Select the product from **Display** under **Display options**. Next, select **Calibrate**.

4. Perform calibration following the onscreen instructions displayed as shown in the image.

To provide calibration samples, tap the crosshair each time that it appears on the screen. Right-click anywhere on the screen to return to the last calibration point. Press the Esc button to close the tool. Do not change your screen orientation until you have completed the calibration process.

5. After calibration is complete, the message **Do you want to save the calibration data?** appears. Select **Yes** to save changes.

6. The touchscreen monitor has been calibrated successfully. Selecting **Reset** will remove the calibration data.
Controlling the screen

Touchscreen gestures

Using touchscreen gestures is similar to using a mouse.

**Tap**

Lightly tap the screen.

Use this gesture to select a feature or menu item.

![Tap gesture](image)

It is similar to clicking on a mouse.

**Drag**

Lightly touch and drag in any direction on the screen.

Use this gesture to move in a specific direction on a web page, map or photo.

![Drag gesture](image)

It is similar to dragging a mouse.

**Double tap**

Tap the screen twice.

Use this gesture to run the selected program.

![Double tap gesture](image)

It is similar to double-clicking on a mouse.
Flick

Flick your finger on the screen as shown in the image.
Use this gesture to go to the previous or next picture or web page.

Notes

- To increase the touch input accuracy, enlarge the font or icons.
- In touchscreen control mode, use of the remote control when precise clicks or inputs are required is more effective.
- For details on how to use the Whiteboard icons, tap the icon at the bottom of the screen, and then tap Quick Guide.

Zoom in/out

Spread or pinch your fingers on the screen as shown in the image.
Use these gestures to zoom in or out respectively on a web page, map or photo.
Before Connecting

Pre-connection Checkpoints

Before connecting a source device, read the user manual provided with it. The number and locations of ports on source devices may differ from device to device.

Do not connect the power cable until all connections are completed. Connecting the power cable during connection may damage the product.

Connect the sound ports correctly: left = white and right = red.

Check the types of ports at the back of the product you want to connect.

We recommend using authorized cables for HDMI or DP cable connections.

Connecting to a PC

• Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.

• A PC can be connected to the product in a variety of ways. Select a connection method suitable for your PC.

Connecting parts may differ in different products.

Connection Using an HDMI Cable

HDMI IN 1, HDMI IN 2, HDMI IN 3
Connection Using an DP Cable

- Precautions for using DP
  - Some graphics cards that are not compliant with the DP standard may prevent the Windows Booting/Bios screen from being displayed when the product is in power-saving mode. If this is the case, make sure to turn on the product first before turning on your PC.
  - The interface DP IN on the product and the provided DP cable are designed based on the VESA standards. Using a DP cable that is not VESA compliant may cause the product to function improperly. Samsung Electronics shall not be held responsible for any issues from using a cable that is not VESA compliant.
  - Make sure to use a DP cable that is VESA compliant.
  - To use the optimal resolution (3840x2160 @ 60Hz) when the input source is DisplayPort, using a DP cable shorter than 5m is recommended.
  - Disabling power-saving mode when the input source is DisplayPort may import new resolution information and reset the task window size or location.

Connection using a DVI cable (Digital type)

- You can use the DVI port on the product as an HDMI port by using a DVI-HDMI adapter.
- Audio is not available if the DVI port on the product is connected to the HDMI port on the PC using a DVI-HDMI adapter.
Connection Using an HDMI-DVI Cable

After connecting a computer to the product with an HDMI-DVI cable, make sure to configure the settings as shown below to enable the video and audio from the computer.

- **Sound** → set HDMI Sound to PC(DVI)
- **Picture** → set each screen mode to Text under Picture Mode
- **System** → **General** → set HDMI Hot Plug to Off
Connecting to a Video Device

- Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.
- You can connect a video device to the product using a cable.
  ✎ Connecting parts may differ in different products.
  ✎ If using the remote control, connect an external device and press SOURCE on the remote control to select the device.
  ✎ When using the touch function, connect the external device to the product, tap Open, and then select the connected external device while the product is turned on.

Connection Using an HDMI-DVI Cable

- Audio will not be enabled if the product is connected to a video device using an HDMI-DVI cable. To resolve this, additionally connect an audio cable to the audio ports on the product and video device.
- After connecting a video device to the product with an HDMI-DVI cable, make sure to configure the settings as shown below to enable the video and audio from the video device. You can use the DVI port on the product as an HDMI port by using a DVI-HDMI adapter. Audio is not available if the DVI port on the product is connected to the HDMI port on the PC using a DVI-HDMI adapter.
  - Sound → set HDMI Sound to AV(HDMI)
  - Picture → set each screen mode to Video/Image under Picture Mode
  - System → General → set HDMI Hot Plug to On
- Supported resolutions include 1080p (50/60Hz), 720p (50/60Hz), 480p, and 576p.
Connection Using an HDMI Cable

Using an HDMI cable or HDMI to DVI Cable (UHD 30Hz)

- An HDMI cable supports digital video and audio signals, and does not require an audio cable.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the product. If such a problem occurs, ask the manufacturer of the external device about the HDMI version and, if out of date, request an upgrade.
- Be sure to use an HDMI cable with a thickness of 14 mm or less.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- A basic high-speed HDMI cable or one with ethernet is recommended. This product does not support the ethernet function via HDMI.

Connecting to an Audio System

Connecting parts may differ in different products.
Changing the Input source

Open

- Using the remote control: SOURCE
- Using touchscreen control mode: Open

Applications

- IWB S5 / Screen Mirroring / Web Browser

Source

Source allows you to select a variety of sources and change source device names. You can display the screen of a source device connected to the product. Select a source from source list to display the screen of the selected source.

- If using the remote control, connect an external device and press SOURCE on the remote control to select the device.
- When using the touch function, connect the external device to the product, tap Open, and then select the connected external device while the product is turned on.
- The screen may not display correctly if an incorrect source is selected for the source device you want to convert to.

- HDMI 1 / HDMI 2 / HDMI 3 / DisplayPort / DVI

Storage

- Internal Storage / USB

The displayed image may differ depending on the model.
# Chapter 05
## Multiple Display Control

Control multiple display devices connected to a PC simultaneously.

## Cable Connection

### RS232C Cable

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interface</td>
<td>RS232C (9 pins)</td>
</tr>
<tr>
<td>Pin</td>
<td>TxD (No.2), RxD (No.3), GND (No.5)</td>
</tr>
<tr>
<td>Bit rate</td>
<td>9600 bps</td>
</tr>
<tr>
<td>Data bits</td>
<td>8 bit</td>
</tr>
<tr>
<td>Parity</td>
<td>None</td>
</tr>
<tr>
<td>Stop bit</td>
<td>1 bit</td>
</tr>
<tr>
<td>Flow control</td>
<td>None</td>
</tr>
<tr>
<td>Maximum length</td>
<td>15 m (only shielded type)</td>
</tr>
</tbody>
</table>

### Pin assignment

- **Male type**
  - Pin 1: Detect data carrier
  - Pin 2: Received data
  - Pin 3: Transmitted data
  - Pin 4: Prepare data terminal
  - Pin 5: Signal ground
  - Pin 6: Prepare data set
  - Pin 7: Send request
  - Pin 8: Clear to send
  - Pin 9: Ring indicator

- **Female type**
  - Pin 1: Detect data carrier
  - Pin 2: Received data
  - Pin 3: Transmitted data
  - Pin 4: Prepare data terminal
  - Pin 5: Signal ground
  - Pin 6: Prepare data set
  - Pin 7: Send request
  - Pin 8: Clear to send
  - Pin 9: Ring indicator
• RS232C cable
  Connector: 9-Pin D-Sub to Stereo Cable

LAN Cable
• Pin assignment

<table>
<thead>
<tr>
<th>Pin No</th>
<th>Standard Color</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White and orange</td>
<td>TX+</td>
</tr>
<tr>
<td>2</td>
<td>Orange</td>
<td>TX-</td>
</tr>
<tr>
<td>3</td>
<td>White and green</td>
<td>RX+</td>
</tr>
<tr>
<td>4</td>
<td>Blue</td>
<td>NC</td>
</tr>
<tr>
<td>5</td>
<td>White and blue</td>
<td>NC</td>
</tr>
<tr>
<td>6</td>
<td>Green</td>
<td>RX-</td>
</tr>
<tr>
<td>7</td>
<td>White and brown</td>
<td>NC</td>
</tr>
<tr>
<td>8</td>
<td>Brown</td>
<td>NC</td>
</tr>
</tbody>
</table>
• Connector: RJ45

Direct LAN cable (PC to HUB)

![Diagram of Direct LAN cable (PC to HUB)]

<table>
<thead>
<tr>
<th>Signal</th>
<th>P1</th>
<th>P2</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX+</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TX-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>RX+</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>RX-</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Cross LAN cable (PC to PC)

![Diagram of Cross LAN cable (PC to PC)]

<table>
<thead>
<tr>
<th>Signal</th>
<th>P1</th>
<th>P2</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX+</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>TX-</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>RX+</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>RX-</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
Connection

Ensure you connect each of the adapters to the correct RS232C IN or OUT port on the product.

- Connection 1

- Connection 2

- Connection 3
## Control Codes

### Viewing control state (Get control command)

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>Command type</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Controlling (Set control command)

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Data</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>Command type</td>
<td>1</td>
<td>Data range</td>
<td>Value</td>
<td></td>
</tr>
</tbody>
</table>

### Command

<table>
<thead>
<tr>
<th>No.</th>
<th>Command type</th>
<th>Command</th>
<th>Value range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power control</td>
<td>0x11</td>
<td>0~1</td>
</tr>
<tr>
<td>2</td>
<td>Volume control</td>
<td>0x12</td>
<td>0~100</td>
</tr>
<tr>
<td>3</td>
<td>Input source control</td>
<td>0x14</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Screen size control</td>
<td>0x19</td>
<td>0~255</td>
</tr>
<tr>
<td>5</td>
<td>Safety Lock</td>
<td>0x5D</td>
<td>0~1</td>
</tr>
</tbody>
</table>

- All communications take place in hexadecimals. The checksum is calculated by adding up all values except the header. If a checksum adds up to be more than 2 digits as shown below (11+FF+01+01=112), the first digit is removed.

  E.g. Power On & ID=0

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Data 1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x11</td>
<td>1</td>
<td></td>
<td>Power</td>
<td></td>
</tr>
</tbody>
</table>

- To control all devices connected by a serial cable simultaneously irrespective of IDs, set the ID as "0xFE" and transmit commands. Commands will be executed by each device but ACK will not respond.
### Power control

- **Function**
  A product can be powered on and off using a PC.

- **Viewing power state (Get Power ON / OFF Status)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x11</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Setting power ON/Off (Set Power ON / OFF)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Data</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x11</td>
<td>1</td>
<td></td>
<td>&quot;Power&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"Power": Power code to be set on a product.
1: Power ON
0: Power OFF

- **Ack**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td></td>
<td>'A'</td>
<td>0x11</td>
<td>&quot;Power&quot;</td>
<td></td>
</tr>
</tbody>
</table>

- **Nak**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td></td>
<td>'N'</td>
<td>0x11</td>
<td>&quot;ERR&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"ERR": A code showing what error has occurred.

### Volume control

- **Function**
  The volume of a product can be adjusted using a PC.

- **Viewing volume state (Get Volume Status)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x12</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Setting the volume (Set Volume)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Data</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x12</td>
<td>1</td>
<td></td>
<td>&quot;Volume&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"Volume": Volume value code to be set on a product. (0-100)

- **Ack**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td></td>
<td>'A'</td>
<td>0x12</td>
<td>&quot;Volume&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"Volume": Volume value code to be set on a product. (0-100)

- **Nak**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td></td>
<td>'N'</td>
<td>0x12</td>
<td>&quot;ERR&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"ERR": A code showing what error has occurred.
Input source control

- Function
  The input source of a product can be changed using a PC.
  - Viewing input source state (Get Input Source Status)

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Setting the input source (Set Input Source)

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Data</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x14</td>
<td></td>
<td>1</td>
<td>&quot;Input Source&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"Input Source": An input source code to be set on a product.

<table>
<thead>
<tr>
<th>0x18</th>
<th>DVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>0x0C</td>
<td>Input source</td>
</tr>
<tr>
<td>0x20</td>
<td>MagicInfo</td>
</tr>
<tr>
<td>0x1F</td>
<td>DVI_video</td>
</tr>
<tr>
<td>0x21</td>
<td>HDMI1</td>
</tr>
<tr>
<td>0x22</td>
<td>HDMI1_PC</td>
</tr>
<tr>
<td>0x23</td>
<td>HDMI2</td>
</tr>
<tr>
<td>0x24</td>
<td>HDMI2_PC</td>
</tr>
<tr>
<td>0x25</td>
<td>DisplayPort</td>
</tr>
</tbody>
</table>

- Ack

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td>'A'</td>
<td>0x14</td>
<td>&quot;Input Source&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Input Source": An input source code to be set on a product.

- Nak

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td>'N'</td>
<td>0x14</td>
<td>&quot;ERR&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"ERR": A code showing what error has occurred.

- Notes
  - DVI_video, HDMI1_PC and HDMI2_PC cannot be used with the Set command. They only respond to "Get" commands.
  - MagicInfo is only available with models that contain the MagicInfo function.
Screen size control

- **Function**
  The screen size of a product can be changed using a PC.

- **Viewing the screen size (Get Screen Size Status)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Ack**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td>'A'</td>
<td>0x19</td>
<td></td>
<td>&quot;Screen Size&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"Screen Size": product screen size (range: 0 – 255, unit: inch)

- **Nak**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td>'N'</td>
<td>0x19</td>
<td></td>
<td>&quot;ERR&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"ERR": A code showing what error has occurred

Safety Lock

- **Function**
  PC can be used to turn the **Safety Lock On** function on or off on a product. This control is available regardless of whether or not the power is turned on.

- **Viewing the safety lock state (Get Safety Lock Status)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x5D</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Enabling or disabling safety lock (Set Safety Lock Enable / Disable)**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Data</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0x5D</td>
<td>1</td>
<td></td>
<td>0x19</td>
<td>&quot;Safety Lock&quot;</td>
</tr>
</tbody>
</table>

"Safety Lock": Safety lock code to be set on a product

1: **ON**
0: **OFF**

- **Ack**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
<th>Checksum</th>
</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td>'A'</td>
<td>0x5D</td>
<td></td>
<td>&quot;Safety Lock&quot;</td>
<td></td>
</tr>
</tbody>
</table>

- **Nak**

<table>
<thead>
<tr>
<th>Header</th>
<th>Command</th>
<th>ID</th>
<th>Data length</th>
<th>Ack/Nak</th>
<th>r-CMD</th>
<th>Val1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>0xAA</td>
<td>0xFF</td>
<td>3</td>
<td>'N'</td>
<td>0x5D</td>
<td></td>
<td>&quot;ERR&quot;</td>
<td></td>
</tr>
</tbody>
</table>

"ERR": A code showing what error has occurred
Using MDC

Multiple display control "MDC" is an application that allows you to easily control multiple display devices simultaneously using a PC.

For details on how to use the MDC program, refer to Help after installing the program. The MDC program is available on the website.

If you press the On or Off button located at the top left of the screen, the product checks its status for about one minute. To run other commands, try after the one minute.

For details on how to connect devices for multiple display control, refer to page 36.

MDC Program Installation/Uninstallation

Installation

1. Click the MDC Unified installation program.
2. Select a language for installation. Next, click "OK".
3. When the "Welcome to the InstallShield Wizard for MDC_Unified" screen appears, click "Next".
4. In the "License Agreement" window displayed, select "I accept the terms in the license agreement" and click "Next".
5. In the displayed "Customer Information" window, fill out all the information fields and click "Next".
6. In the displayed "Destination Folder" window, select the directory path you want to install the program in and click "Next".
    - If the directory path is not specified, the program will be installed in the default directory path.
7. In the displayed "Ready to Install the Program" window, check the directory path to install the program in and click "Install".
8. Installation progress will be displayed.
9. Click "Finish" in the displayed "InstallShield Wizard Complete" window.
    - Select "Launch MDC Unified" and click "Finish" to run the MDC program immediately.
10. The MDC Unified shortcut icon will be created on the desktop after installation.
    - The MDC execution icon may not be displayed depending on the PC system or product specifications.
    - Press F5 if the execution icon is not displayed.

Uninstallation

1. Select Settings > Control Panel on the Start menu and double-click Add/Delete Program.
2. Select MDC Unified from the list and click Change/Remove.
Chapter 06
Screen Adjustment

Configure the Picture settings (Backlight, Color Tone, etc.). The layout of the Picture menu options may vary depending on the product.

Picture Mode

MENU  →  Picture  →  Picture Mode  →  ENTER

<table>
<thead>
<tr>
<th>Picture Mode</th>
<th>Shop &amp; Mall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backlight</td>
<td>100</td>
</tr>
<tr>
<td>Contrast</td>
<td>70</td>
</tr>
<tr>
<td>Brightness</td>
<td>45</td>
</tr>
<tr>
<td>Sharpness</td>
<td>65</td>
</tr>
<tr>
<td>Color</td>
<td>50</td>
</tr>
<tr>
<td>Tint (G/R)</td>
<td>G50 / R50</td>
</tr>
</tbody>
</table>

Select a picture mode (Picture Mode) suitable for the environment where the product will be used.

- **Video/Image** mode improves the picture quality of the video device. **Text** mode improves the picture quality of the computer.

- **Shop & Mall**
  - Suitable for shopping malls.
  - Select either Video/Image or Text depending on the picture mode.

- **Office & School**
  - Suitable for offices and schools.
  - Select either Video/Image or Text depending on the picture mode.

- **Terminal & Station**
  - Suitable for bus terminals and train stations.
  - Select either Video/Image or Text depending on the picture mode.

- **Video Wall**
  - Suitable for environments where videowall display are used.
  - Select either Video/Image or Text depending on the picture mode.

- **Calibration**
  - In this mode, the brightness, color, gamma and uniformity settings customized using the color calibration program Color Expert are applied.
  - To apply the Calibration mode properly, make sure you configure the picture quality settings, such as brightness, color, gamma and uniformity, using the color calibration program Color Expert.
  - To download the Color Expert program, visit www.samsung.com/displaysolutions.

The displayed image may differ depending on the model.

If HDR+ Mode is set to On, Picture Mode is disabled.
Your product has several options for adjusting picture quality.

When you make changes to Backlight, Contrast, Brightness, Sharpness, Color or Tint (G/R), the OSD will be adjusted accordingly.

You can adjust and store settings for each external device you have connected to an input on the product.

Lowering picture brightness reduces power consumption.

To adjust Color and Tint (G/R), set Picture Mode to Video/Image.

The displayed image may differ depending on the model.
Adjust the color temperature (Red / Green / Blue). (Range: 2800K–16000K)

Enabled when Color Tone is set to Off.

If Picture Mode is set to Calibration, Color Temperature is disabled.
White Balance

MENU → Picture → White Balance → ENTER

The displayed image may differ depending on the model.

Adjust the color temperature of the picture so that white objects appear brighter.

2 Point
Adjust red, green, and blue luminosity levels in two sections for precise white balance optimization.
- R-Offset / G-Offset / B-Offset: Adjust the proportion of each of red, green and blue colors in dark areas.
- R-Gain / G-Gain / B-Gain: Adjust the proportion of each of red, green and blue colors in bright areas.
- Reset: Suitable for environments where videowall display are used.

20 Point Settings
Controls the white balance in 20 point interval by adjusting the red, green, and blue brightness.

20 Point
Adjust red, green, and blue luminosity levels in twenty sections for precise white balance optimization.
- Off / On
- Interval: Select interval to adjust.
- Red: Adjust the red level.
- Green: Adjust the green level.
- Blue: Adjust the blue level.
- Reset: Suitable for environments where videowall display are used.

Some external devices may not support this function.
Gamma

MENU → Picture → Gamma → ENTER

Picture
- Gamma
  - BT.1886

The displayed image may differ depending on the model.

Adjust the primary color intensity.
- **HLG / ST.2084 / BT.1886**
  - If Picture Mode is set to Calibration, Gamma is disabled.
  - The HLG, ST.2084, and BT.1886 sub functions of Gamma vary depending on the input picture and the HDR+ Mode value. When HDR+ Mode is set to On, all of HLG, ST.2084, and BT.1886 are available.

**HLG / ST.2084 / BT.1886**

Adjust the HLG, ST.2084, BT.1886 levels of the picture.

Calibrated Value

MENU → Picture → Calibrated Value → ENTER

Picture
- Calibrated Value
  - Don't Apply

Select whether to apply the brightness, color, gamma and uniformity settings customized using the color calibration program Color Expert to the Information and Advertisement modes.
- Don't Apply / Apply
  - To download the Color Expert program, visit www.samsung.com/displaysolutions.
  - If Picture Mode is set to Calibration, Calibrated Value is disabled.

The displayed image may differ depending on the model.
Advanced Settings

MENU \(\rightarrow\) Picture \(\rightarrow\) Advanced Settings \(\rightarrow\) ENTER

Advanced Settings

- **Contrast Enhancer**: Automatically balance the contrast to prevent excessive differences between bright and dark areas.
  - Off / Low / Medium / High
  - If Picture Mode is set to Video Wall, Contrast Enhancer is disabled.

- **Black Tone**: Select the black level to adjust the screen depth.
  - Off / Dark / Darker / Darkest

- **Flesh Tone**: Emphasize pink Flesh Tone.
  - Enabled when Picture Mode is set to Video/Image.

- **RGB Only Mode**: Fine-tune the saturation and tint of the red, green, and blue color channels.
  - Off / Red / Green / Blue

The displayed image may differ depending on the model.
### Advanced Settings

<table>
<thead>
<tr>
<th>Feature</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Space Settings</td>
<td>Native</td>
</tr>
<tr>
<td>HDMI UHD Color</td>
<td>Off</td>
</tr>
<tr>
<td>Motion Lighting</td>
<td>Off</td>
</tr>
<tr>
<td>HDR+ Mode</td>
<td>Off</td>
</tr>
</tbody>
</table>

The displayed image may differ depending on the model.

---

### Color Space Settings

Configure color space settings to refine the spectrum of colors on your screen.

- **Enabled** when **Picture Mode** is set to Video/Image.

#### Color Space

Choose a color space.

- Auto / Native / Custom

To adjust Color, Red, Green, Blue and Reset, set Color Space to Custom.

#### HDMI UHD Color

Enable to optimize picture quality for HDMI UHD connection.

- HDMI1 (Off / On)
- HDMI2 (Off / On)

It supports only the models with UHD resolution.

#### Motion Lighting

Reduces power consumption by reducing screen brightness when the picture on the screen is in motion.

- Off / On

#### HDR+ Mode

Automatically provide an optimal HDR effect based on the video source.

- Off / On
Picture Options

MENU → Picture → Picture Options → ENTER

Color Tone
If Picture Mode is set to Text
• Off / Cool / Standard / Warm
If Picture Mode is set to Video/Image
• Off / Cool / Standard / Warm1 / Warm2

If Picture Mode is set to Calibration, Color Tone is disabled.

Settings can be adjusted and stored for each external device connected to an input on the product.

Digital Clean View
Reduce picture noise to avoid distractions such as flickering.
• Off (✓) / On (✓)

If Picture Mode is set to Calibration, Digital Clean View is disabled.

Enabled when Picture Mode is set to Video/Image.

The displayed image may differ depending on the model.
HDMI Black Level
Selects the black level on the screen to adjust the screen depth.
- Normal / Low / Auto

Film Mode
This mode is suitable for watching video programs.
When Film Mode is set to automatic, the product senses and processes movie signals from all sources and adjusts the picture for optimum quality.
- Off / Auto1 / Auto2
  - This option can be configured if the input source supports 480i, 576i or 1080i.
  - This option is not supported when a PC is connected.
  - Enabled when Picture Mode is set to Video/Image.

Dynamic Backlight
Automatically adjust the backlight to provide the best possible screen contrast under the current conditions.
- Off / On

  - The default values of the Dynamic Backlight function in each Picture Mode are as follows:

<table>
<thead>
<tr>
<th>Dynamic Backlight</th>
<th>Picture Mode</th>
<th>Picture Mode settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Shop &amp; Mall, Office &amp; School, Terminal &amp; Station, Video Wall</td>
<td>Text</td>
</tr>
<tr>
<td></td>
<td>Video Wall</td>
<td>Video/Image</td>
</tr>
<tr>
<td></td>
<td>Calibration</td>
<td>-</td>
</tr>
<tr>
<td>On</td>
<td>Shop &amp; Mall, Office &amp; School, Terminal &amp; Station</td>
<td>Video/Image</td>
</tr>
</tbody>
</table>
Picture Size Settings

Choose size and aspect ratio picture displayed on screen.

Picture Size

Different screen adjustment options are displayed depending on the current input source.

- **Available ports may differ depending on the model.**
- **16:9 Standard**: Sets the picture to 16:9 Standard wide mode.
- **Custom**: Changes the resolution to suit the user's preferences.
- **4:3**: Sets the picture to basic (4:3) mode.
  - Do not set your product to 4:3 format for a long time. The borders displayed on the left and right, or top and bottom of the screen may cause image retention (screen burn) which is not covered by the warranty.

Fit to Screen

Adjusts the picture position. When selected, the full program image will be displayed. No part of the image will be cut off.

- **Off / On / Auto**

Zoom and Position

Adjusts the picture zoom and position. This option is available when the input source is set to DVI, HDMI 1, HDMI 2, HDMI 3 (1080i/1080p), DisplayPort. Picture Size must be set to Custom for the option to be available.

- If you want to reset the picture to its original position, select **Reset** in the Zoom and Position screen. The picture will be set to its default position.

The displayed image may differ depending on the model.
Reset Picture

Resets your current picture mode to its default settings.

MENU → Picture → Reset Picture → ENTER

The displayed image may differ depending on the model.
Screen Protection

MENU → OnScreen Display → Screen Protection → ENTER

Screen Protection

- Auto Protection Time
- Screen Burn Protection

The displayed image may differ depending on the model.

Auto Protection Time
If the screen displays a still image for a certain period of time you define, the product activates the screen saver to prevent the formation of burnt in ghost images on the screen.
- Off / 2 hours / 4 hours / 6 hours / 8 hours / 10 hours

Screen Burn Protection
To reduce the possibility of screen burn, this unit is equipped with Screen Burn Protection screen burn prevention technology.
Screen Burn Protection moves the picture slightly on the screen.
The Screen Burn Protection Time setting allows you to program the time between movements of the picture in minutes.

Pixel Shift
Minimize image retention by finely moving pixels horizontally or vertically.
- Pixel Shift (Off (☐) / On (☐))
  - Horizontal, Vertical and Time are enabled only when Pixel Shift is set to On.
- Horizontal: Sets how many pixels the screen moves horizontally.
- Vertical: Sets how many pixels the screen moves vertically.
- Time: Set the time interval for performing the horizontal or vertical movement, respectively.
Available Pixel Shift Settings and Optimum Settings.

<table>
<thead>
<tr>
<th></th>
<th>Available Settings</th>
<th>Optimum Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Horizontal (pixels)</strong></td>
<td>0 ~ 4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Vertical (pixels)</strong></td>
<td>0 ~ 4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Time (minute)</strong></td>
<td>1 minute ~ 4 minutes</td>
<td>4 minutes</td>
</tr>
</tbody>
</table>

- The **Pixel Shift** value may differ depending on the product size (inches) and mode.
- Displaying a still image or a **4:3** output for an extended period of time may cause image retention. This is not a defect in the product.
Screen Burn Protection

Pixel Shift

Timer

Immediate Display

Off

The displayed image may differ depending on the model.

Timer

You can set the timer for Screen Burn Protection.
The Screen Burn Protection feature stops automatically after a specified period of time.

Timer

Off

Repeat: Display the image retention-preventive pattern set in Mode at specified time intervals (Period).

Interval: Display the image retention-preventive pattern set in Mode for a specified period of time (from Start Time to End Time).

Mode, Period, Time, Start Time and End Time are enabled only when Timer is set to Repeat or Interval.

- Mode: Select a screen protective pattern to display.
  - Pixel: Pixels on the screen alternate black continuously.
  - Rolling Bar: A vertical bar moves left to right.
  - Fading Screen: The entire screen becomes brighter, then darker.

The Rolling Bar and Fading Screen patterns appear only once regardless of the specified repeat period or time.

- Period: Specify the time interval to activate the Screen Burn Protection function.

  The option is enabled when Repeat is selected for Timer.

- Time: Specify the duration to keep the Screen Burn Protection function on.

  Enabled when Timer is set to Repeat and Mode is set to Pixel.

- Start Time: Set the start time to activate the screen protection function.

  The option is enabled when Interval is selected for Timer.

- End Time: Set the end time to deactivate the screen protection function.

  The option is enabled when Interval is selected for Timer.
Screen Burn Protection
Pixel Shift
Timer
Immediate Display Off

Immediate Display
Select the screen saver you want to display immediately.
- Off / Pixel / Rolling Bar / Fading Screen

The displayed image may differ depending on the model.

Message Display

Menu → OnScreen Display → Message Display → ENTER

Message Display
Source Info On
MDC Message On

Source Info
Select whether to display the source OSD when the input source changes.
- Off / On

MDC Message
Select whether to display the MDC OSD when the product is controlled by the MDC.
- Off / On

The displayed image may differ depending on the model.
**Language**

MENU → OnScreen Display → Language → ENTER

The displayed image may differ depending on the model.

OnScreen Display

Language: English

---

**Set the menu language.**

A change to the language setting will only be applied to the onscreen menu display. It will not be applied to other functions on your PC.

---

**Reset OnScreen Display**

MENU → OnScreen Display → Reset OnScreen Display → ENTER

The displayed image may differ depending on the model.

OnScreen Display

Reset OnScreen Display

---

This option returns the current settings under OnScreen Display to the default factory settings.
**Sound Mode**

Configure the sound settings for the product.

You can select a sound mode to suit your personal preferences.
- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.

*If Sound Output is set to External, Sound Mode is disabled.*

<table>
<thead>
<tr>
<th>Sound Mode</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance</td>
<td></td>
</tr>
<tr>
<td>Equalizer</td>
<td></td>
</tr>
<tr>
<td>HDMI Sound</td>
<td>AV(HDMI)</td>
</tr>
<tr>
<td>Sound Output</td>
<td>Internal</td>
</tr>
<tr>
<td>Auto Volume</td>
<td></td>
</tr>
<tr>
<td>Reset Sound</td>
<td></td>
</tr>
</tbody>
</table>

*The displayed image may differ depending on the model.*
**Balance**

MENU REW → Sound → Balance → ENTER

Adjust speaker volume levels for sound balance optimization.

- **Balance L/R**: Adjusts the balance between the left and right speaker.
- **Reset**: Resets the balance to its default settings.

⚠️ If **Sound Output** is set to **External**, **Balance** is disabled.

**Equalizer**

MENU REW → Sound → Equalizer → ENTER

Adjust the equalizer to customize the volume and pitch, and enhance the richness of the sound output.

- 100 Hz / 200 Hz / 500 Hz / 1 kHz / 2 kHz / 5 kHz / 10 kHz (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
- **Reset**: Resets the equalizer to its default settings.

⚠️ Available only when **Sound Mode** is set to **Standard**.

⚠️ If **Sound Output** is set to **External**, **Equalizer** is disabled.

**HDMI Sound**

MENU REW → Sound → HDMI Sound → ENTER

Select whether to hear from AV(HDMI) or PC(DVI).

- AV(HDMI) / PC(DVI)

**Sound Output**

MENU REW → Sound → Sound Output → ENTER

Select speakers for sound output.

- **Internal / External**

⚠️ When you set **Sound Output** to **External**, the products speakers are turned off. You will hear sound through the external speakers only. When the **Sound Output** is set to **Internal**, both the product speakers and the external speakers are on. You will hear sound through both.

⚠️ If there is no video signal, both the products speakers and the external speakers will be mute.
Auto Volume

MENU → Sound → Auto Volume → ENTER

Automatically adjusts the volume level when you change video sources or content so the level remains the same.

- Off (.GetLength) / On (GetLength)

* To use the volume control of a connected source device, set Auto Volume to Off.

* If Sound Output is set to External, Auto Volume is disabled.

Reset Sound

MENU → Sound → Reset Sound → ENTER

The displayed image may differ depending on the model. Reset all sound settings to the factory defaults.
Chapter 09
Network

The Network functions cannot be configured while the Screen Mirroring function is running.

Network Status

MENU → Network → Network Status → ENTER
You can check the current network and Internet status.

Open Network Settings

MENU → Network → Open Network Settings → ENTER
Configure network settings to use various smart hub features such as Internet search, content sharing through a home network and feature updates.

Network Type

- Wireless / Wired
Network Settings (Wired)

Connecting to a Wired Network

There are three ways to attach your product to your LAN using cable.

- You can attach your product to your LAN by connecting the LAN port on the back of your product to an external modem using a LAN cable. See the diagram below.

![Diagram of Modem Port on the Wall, External Modem (ADSL / VDSL), and LAN Cable](image)

- You can attach your product to your LAN by connecting the LAN port on the back of your product to an IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.

![Diagram of Modem Port on the Wall, External Modem (ADSL / VDSL), IP Sharer (having DHCP server), and LAN Cable](image)

- Depending on how your network is configured, you may be able to attach your product to your LAN by connecting the LAN port on the back of your product directly to a network wall outlet using a LAN cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.

![Diagram of The LAN Port on the Wall, LAN Cable, and RJ45](image)

If you have a Dynamic Network, you should use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your product needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks.

Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your product Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP).

If you have a Windows computer, you can also get these values through your computer.

- You can use ADSL modems that support DHCP if your network requires a Static IP address.
- ADSL modems that support DHCP also let you use Static IP addresses.
Set the network connection to use Internet services such as perform software upgrades.

**Automatic Open Network Settings (Wired)**

Connect to the network using a LAN cable.
Make sure a LAN cable is connected first.

**How to set up automatically**
1. Set Network Type to Wired from the Open Network Settings page.
2. The network test screen appears and verifies the network connection.
   When the connection has been verified, the “Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.” message appears.
   ![If the connection process fails, check the LAN port connection.](image)
   ![If the automatic process cannot find the network connection values or if you want to set the connection manually, go to the next section, network setup.](image)

**Manual Open Network Settings (Wired)**

Offices may use static IP addresses.
If this is the case, ask the network administrator for the IP address, subnet mask, gateway and DNS server address. Enter these values manually.

**Getting the Network Connection Values**
To view the Network connection values on most Windows computers, follow these steps.
1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

**How to set up manually**
1. Set Network Type to Wired from the Open Network Settings page.
2. The network test screen appears and the verification process starts. Press Cancel. The verification process stops.
4. Select the field at the top, press E, and then set IP Setting to Enter manually. Repeat the entry process for each field in the IP Address.
   ![Setting IP Setting to Enter manually automatically changes DNS Setting to Enter manually.](image)
5. When done, select OK at the bottom of the page, and then press E. The network test screen appears and the verification process starts.
6. When the connection has been verified, the “Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.” message appears.
Network Settings (Wireless)

Connecting to a Wireless Network

Samsung recommends using IEEE 802.11n. When you play video over a network connection, the video may not play smoothly.

Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.

Your product supports only the following wireless network security protocols.

If you select the Pure High-throughput (Greenfield) 802.11n mode and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) on your AP or wireless router, Samsung products will not support a connection in compliance with new Wi-Fi certification specifications.

If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.

Connection Methods: You can setup the wireless network connection in three ways. Auto Setup (Using the Auto Network Search function), Manual Setup, Use WPS

Automatic Network Setup (Wireless)

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security key. The Security key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network. If you use this method of setting up the network connection, and have a Security key for your wireless network, you will have to enter the Pass Phrase during the the automatic or manual setup process.

How to set up automatically

1. Set Network Type to Wireless from the Open Network Settings page.
2. The Network function searches for available wireless networks. When done, it displays a list of the available networks.
   - In the list of networks, press the ▲ or ▼ button to select a network, and then press the E button twice.
   - If the desired wireless router does not appear, select Refresh to search again.
   - If the router cannot be found after retrying, select the Stop button.
   - The Add Network button appears.
3. If the Enter the password for (AP Name). screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.
4. If the router has security, enter the Enter the password for (AP Name). (Security key or PIN).
5. When done, use the right arrow button to move the cursor to Done, and then press E. The network connection screen appears and the verification process starts.
   - A connection with the router is established, but the Internet cannot be accessed.
6. When the connection has been verified, the “Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.” message appears.
Manual Network Setup (Wireless)

Offices may use static IP addresses. If this is the case, ask the network administrator for the IP address, subnet mask, gateway and DNS server address. Enter these values manually.

Getting the Network Connection Values

To view the Network connection values on most Windows computers, follow these steps.
1. Right click the Network icon on the bottom right of the screen.
2. In the pop-up menu that appears, click Status.
3. On the dialog that appears, click the Support tab.
4. On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

1. Set Network Type to Wireless from the Open Network Settings page.
2. The Network function searches for available wireless networks. When done, it displays a list of the available networks.
3. In the list of networks, press the ▲ or ▼ button to select a network, and then press the Enter button twice.
   - If the desired wireless router does not appear, select Refresh to search again.
   - If the router cannot be found after retrying, select the Stop button.
   - The Add Network button appears.
4. If the Enter the password for (AP Name). screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.
5. If the router has security, enter the (Security key or PIN).
6. When done, use the right arrow button to move the cursor to Done, and then press Enter twice. The network connection screen appears and the verification process starts.
7. Select Cancel while network connections are being attempted. This will stop the connection.
8. Select IP Settings on network connection screen. The IP Settings screen appears.
9. Select the field at the top, press Enter, and then set IP Setting to Enter manually. Repeat the entry process for each field in the IP Address.
   - Setting IP Setting to Enter manually automatically changes DNS Setting to Enter manually.
10. When done, select OK at the bottom of the page, and then press Enter. The network test screen appears and the verification process starts.
11. When the connection has been verified, the “Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.” message appears.
Use WPS

How to set up using Use WPS

If your router has a Use WPS button, follow these steps.

1. Set Network Type to Wireless from the Open Network Settings page.
2. Select Use WPS, press E, and then press E again.
3. Press the WPS or PBC button on your wireless router within the next two minutes. Your product automatically acquires all the network setting values it needs and connects to your network.
   - If you want to use the WPS PIN, select WPS PIN.
   - Go to your wireless router’s Settings, enter your PIN, and then select OK.
4. The network connection screen appears, and network setup is done.

Server Network Settings

MENU ➔ Network ➔ Server Network Settings ➔ ENTER

Proxy Server

Set up your proxy server connection and related functions.
Off / On
- Address / Port / ID / Password

Address / Port / ID and Password are enabled only when Proxy Server is set to On.

Device Name

MENU ➔ Network ➔ Device Name ➔ ENTER

Select or enter a device name.
This name can be shown on network remote controls over the network.
- [Signage] Display1 ~ 6 / User Input
Chapter 10
System

Whiteboard Manager

MENU → System → Whiteboard Manager → ENTER

System

Whiteboard Manager
Accessibility
Start Setup
Time
Power Control
Eco Solution
Temperature Control

This is IWB Whiteboard Manager.

Enter your 4 digit PIN number. The default PIN number is "0-0-0-0". If you want to change the PIN number, use the Change PIN function.

Start from Home
Select the screen that will be displayed at startup.

• Off / On

Reset Interval
Set a regular reset interval at which all data on the internal storage will be deleted.

• Off / Every 2 Weeks / Every Month / On Power Off

The displayed image may differ depending on the model.
Samba
Add and edit Samba accounts.

Add Samba Account
Add new Samba accounts.
• Address / Username / Password

Edit Samba Account
Edit Samba accounts.

Email
Set up an email account for sending emails.
• SMTP Server Name / SMTP Port Number / Sender Authentication / Account / Password

You can register your email account at System → Whiteboard Manager → Email.

USB Lock
Set up a USB Lock. After setting up, the device will be restarted to apply the settings.
• Off / On

Network Lock
Set up a Network Lock. After setting up, the device will be restarted to apply the settings.
• Off / On
Voice Guide Settings

Voice Guide
Switch Voice Guide on or off. The language used for Voice Guide will be the same as the current menu language.
- Off (●) / On (○)

Volume, Speed and Pitch are enabled only when Voice Guide is set to On.

Volume
Set the volume level for the Voice Guide.
- Loud / Medium / Soft

Speed
Set the speed of the Voice Guide.
- Very Fast / Fast / Normal / Slow / Very Slow

Pitch
Tune the pitch of the Voice Guide.
- High / Medium / Low

Accessibility

MENU 
→ System → Accessibility → ENTER 

Accessibility

Voice Guide Settings

High Contrast

Enlarge

The displayed image may differ depending on the model.
High Contrast

Set the background and font to high-contrast colors in Menu. Menu transparencies become opaque when the option is selected.

- Off (●) / On (●)

Enlarge

Enlarge the size of the Menu area.

- Off (●) / On (●)

Start Setup

Go through the initial setup steps like you did the first time you used this product.

 совершиите входной сеанс по шагам, как если бы вы использовали продукт впервые.

ари введите четырехзначный PIN-код. По умолчанию PIN-код равен "0-0-0-0".

Если хотите изменить PIN-код, используйте функцию Change PIN.
You can configure **Clock Set** or **DST**. Configure various time-related settings.

### Clock Set

Select **Clock Set**. Select **Date** or **Time**, and then press enter. Use the number buttons to enter numbers or press the up and down arrow buttons. Use the left and right arrow buttons to move from one entry field to the next. Press enter when done.

> You can set the time by pressing the number buttons on the remote control or touching the screen directly.

### DST

Switches the DST (Daylight Saving Time) function on or off.

- **Off** / **On**
- **Start Date**: Set the start date of Daylight Saving Time.
- **End Date**: Set the end date of Daylight Saving Time.
- **Time Offset**: Select the correct time offset your timezone.

> **Start Date**, **End Date** and **Time Offset** are enabled only when **DST** is set to **On**.

### Power On Delay

When connecting multiple products, adjust the power-on time for each product to prevent power overload (within the range 0–50 seconds).
Power Control

MENU → System → Power Control → ENTER

<table>
<thead>
<tr>
<th>Power Control</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Power On</td>
<td>Off</td>
</tr>
<tr>
<td>Max. Power Saving</td>
<td>On</td>
</tr>
<tr>
<td>Network Standby</td>
<td>Off</td>
</tr>
<tr>
<td>Power Button</td>
<td>Power On Only</td>
</tr>
</tbody>
</table>

The displayed image may differ depending on the model.

Auto Power On
This feature automatically turns on the product as soon as it is plugged in. Pressing the power button is not needed.
- Off / On

Max. Power Saving
Turns off the product to reduce power consumption after the PC has been left idle for a specified period of time.
- Off / On

Network Standby
This feature keeps the network power on when the product turns off.
- Off / On

Power Button
The power button can be set to either turn on the power or turn on/off the power.
- Power On Only: Set the power button to turn on the power.
- Power On/Off: Set the power button to turn on/off the power.
Eco Solution

MENU → System → Eco Solution → ENTER

<table>
<thead>
<tr>
<th>Eco Solution</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Saving Mode</td>
<td>Off</td>
</tr>
<tr>
<td>Screen Lamp Schedule</td>
<td>Off</td>
</tr>
<tr>
<td>Auto Power Off</td>
<td>Off (Recommended)</td>
</tr>
</tbody>
</table>

The displayed image may differ depending on the model.

Power Saving Mode
Reduce the power consumption by adjusting the screen brightness.
- Off / Low / Medium / High

Screen Lamp Schedule

Screen Lamp Schedule
Enable or disable the lamp schedule.
- Off / On

Schedule1, Schedule2

Time
The panel brightness will change to the brightness set in Lamp at a specified time.

Lamp
Adjust the panel brightness. A value closer to 100 makes the panel brighter.
- 0 ~ 100
Auto Power Off

The product will automatically turn off if you don’t press a button on the remote or touch a button on product front panel within select hours to prevent overheating.

- Off (Recommended) / 4 hours / 6 hours / 8 hours

Eco Solution

<table>
<thead>
<tr>
<th>Power Saving Mode</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen Lamp Schedule</td>
<td>Off</td>
</tr>
<tr>
<td>Auto Power Off</td>
<td>Off (Recommended)</td>
</tr>
</tbody>
</table>

The displayed image may differ depending on the model.

Temperature Control

MENU → System → Temperature Control → ENTER

| System | Temperature Control | 77 |

This function detects the internal temperature of the product. You can specify the temperature range that is acceptable.

The default temperature is set to 77 °C.

The recommended operating temperature for this product is 75 to 80 °C (based on an ambient temperature of 40 °C).

The screen will become darker if the current temperature exceeds the specified temperature limit. If the temperature continues to rise, the product will power off to prevent overheating.

The displayed image may differ depending on the model.
ID Settings

Device ID
Set a unique ID number for each product. (Range: 0~224)
Press u/d to select a number, and press E.
Enter the number you want using the number buttons on the remote control.

PC Connection Cable
Select which type of cable you are using to connect the display to the PC.
- RS232C cable
  Communicate with MDC via the RS232C-stereo cable.
- RJ-45 (LAN)/Wi-Fi Network
  Communicate with MDC via the RJ45 cable.

Change PIN

Change your 4-digit Personal Identification Number (PIN).
Choose any 4 digits for your PIN and enter it in Enter a new PIN. Reenter the same 4 digits in Enter the PIN again.
The product has memorized your new PIN.
Default password: 0 - 0 - 0 - 0

MENU ➔ System ➔ ID Settings ➔ ENTER

ID Settings

Device ID
RS232C cable

MENU ➔ System ➔ Change PIN ➔ ENTER

System

Change PIN
Security

MENU  → System → Security → ENTER

Safety Lock On

Enter your 4 digit PIN number. The default PIN number is "0-0-0-0". If you want to change the PIN number, use the Change PIN function.

Turn Safety Lock On on or off. Safety Lock On restricts the actions that can be carried out by the remote control. The correct PIN must be entered to turn Safety Lock On off.

Power On Button

Turn on this feature to enable the remote control’s Power button to turn on the device while Safety Lock On is enabled.

- Off / On

Button Lock

This menu can be used to lock the buttons on the product.

Only the remote control can control the product if Button Lock is set to On.

- Off / On

Remote Management

You can Allow or Deny external commands to access your device via a network.

- Deny / Allow

The changed setting remains even after the product is turned off and on using the Power button or Power switch.

The displayed image may differ depending on the model.
General

MENU → System → General → ENTER

- Smart Security
  The security provided to protect your display device and connected storage devices against viruses includes.
  - Scan
    Inspect your display device and connected storage devices to check for viruses.
  - Isolated List
    This is the list of items that have been isolated for containing viruses.

- HDMI Hot Plug
  This feature is used to activate the time delay to turn on a DVI/HDMI source device.
  - Off / On

The displayed image may differ depending on the model.
Custom Logo

You can download, select, and set the display time of a custom logo that appears when the product turns on.

- **Custom Logo**
  - You can select a custom logo (image/video) or turn off the custom logo display.
  - You must download the custom logo from an external USB device to set the custom logo.

- **Logo Display Time**
  - If the type of custom logo is Image, you can set the Logo Display Time.

- **Download Logo File**
  - You can download a custom logo into the product from an external USB device.
  - The file name of the custom logo you want to download must be saved as "samsung" in all small letters.
  - When there are multiple numbers of external USB connections, the product will attempt to download the custom logo from the last device that has been connected to the product.

**Custom logo file restrictions**

- For image type custom logo, only bitmap files (aRGB 32bpp format) are supported.
- The resolution of the image type custom logo must be between a minimum of 64x64 and the maximum screen resolution. (Horizontal/Vertical values of the resolution must be multiples of 4.)
- For video type custom logo, only TS Stream types are supported.
- The maximum supported video file is 150 MB. The recommended length of a video file is 20 seconds or less.
Game Mode

When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

- Off (☐) / On (●)

If you connect other external devices while Game Mode is on, the screen may not be in good condition.

Reset System

This option returns the current settings under system to the default factory settings.

MENU ➤ System ➤ Reset System ➤ ENTER ➤

The displayed image may differ depending on the model.
Chapter 11
Support

Software Update

MENU  →  Support  →  Software Update  →  ENTER

The Software Update menu lets you upgrade your product software to the latest version.
>
Be careful not to turn off the power until the upgrade is complete. The product will turn off and on automatically after completing the software upgrade.

When you upgrade software, all video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

Update Now

Update the software to the latest version.
>
Current version: This is the software version already installed in the product.

Contact Samsung

MENU  →  Support  →  Contact Samsung  →  ENTER

View this information when your product does not work properly or when you want to upgrade the software.

You can find information regarding our call centers and how to download products and software.

Go to Contact Samsung and find the product Model Code and Software Version.

Reset All

MENU  →  Support  →  Reset All  →  ENTER

This option returns all the current settings for a display to the default factory settings.
Before calling Samsung Customer Service Center, test your product as follows. If the problem persists, contact Samsung Customer Service Center.

Requirements Before Contacting Samsung Customer Service Center

Testing the Product
Check if your product is operating normally by using the product test function.
If the screen remains blank while the power LED blinks even when the product is correctly connected to a PC, perform product testing.
1. Power off both the PC and product.
2. Disconnect all the cables from the product.
3. Power on the product.
4. If No Signal is displayed, the product is operating normally.
If the screen remains blank, check the PC system, video controller and cable.

Checking the Resolution and Frequency
For modes that exceed the supported resolutions, the message "Not Optimum Mode" appears briefly.
Set the PC resolution by referring to Preset Timing Modes.
Check the followings.

### Installation issue (PC mode)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The screen keeps switching on and off.</td>
<td>Check that the cable between the product and the PC is connected correctly.</td>
</tr>
<tr>
<td>Blank spaces are found on all four sides of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.</td>
<td>The blank spaces found on the screen have nothing to do with the product.</td>
</tr>
<tr>
<td></td>
<td>Blank spaces on the screen are caused by the PC or graphics card. To resolve the problem, adjust the screen size in the HDMI or DVI settings for the graphics card.</td>
</tr>
<tr>
<td></td>
<td>If the graphics card settings menu does not have an option to adjust the screen size, update the graphics card driver to the latest version. (Please contact the graphics card or computer manufacturer for further details about how to adjust the screen settings.)</td>
</tr>
</tbody>
</table>

### Screen issue

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The power LED is off. The screen will not switch on.</td>
<td>Make sure that the power cord is connected.</td>
</tr>
<tr>
<td><strong>No Signal</strong> is displayed on the screen.</td>
<td>Check that the product is connected correctly with a cable.</td>
</tr>
<tr>
<td></td>
<td>Check that the device connected to the product is powered on.</td>
</tr>
<tr>
<td></td>
<td>Depending on the type of external device, the screen may not display properly. In this case, connect it with the <strong>HDMI Hot Plug</strong> function turned <strong>On</strong>.</td>
</tr>
<tr>
<td><strong>Not Optimum Mode</strong> is displayed.</td>
<td>This message is displayed when a signal from the graphics card exceeds the product's maximum resolution and frequency.</td>
</tr>
<tr>
<td></td>
<td>Refer to the Standard Signal Mode Table and set the maximum resolution and frequency according to the product specifications.</td>
</tr>
<tr>
<td>The images on the screen look distorted.</td>
<td>Check the cable connection to the product.</td>
</tr>
<tr>
<td>The screen is not clear. The screen is blurry.</td>
<td>Set the resolution and frequency to the recommended level.</td>
</tr>
<tr>
<td>Screen issue</td>
<td>Instructions</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The screen appears unstable and shaky.</td>
<td>Check that the resolution and frequency of the PC and graphics card are set within a range compatible with the product. Then, change the screen settings if required by referring to ‘Preset Timing Modes’.</td>
</tr>
<tr>
<td>There are shadows or ghost images left on the screen.</td>
<td></td>
</tr>
<tr>
<td>The screen is too bright. The screen is too dark.</td>
<td>Adjust Brightness and Contrast.</td>
</tr>
<tr>
<td>Screen color is inconsistent.</td>
<td>Go to Picture and adjust the Color Space Settings settings.</td>
</tr>
<tr>
<td>White does not really look white.</td>
<td>Go to Picture and adjust the White Balance settings.</td>
</tr>
<tr>
<td>There is no image on the screen and the power LED blinks every 0.5 to 1 second.</td>
<td>The product is in power-saving mode.</td>
</tr>
<tr>
<td></td>
<td>Press any key on the keyboard or move the mouse to return to the previous screen.</td>
</tr>
<tr>
<td>The product will turn off automatically.</td>
<td>If a PC is connected to the product, check the power status of the PC.</td>
</tr>
<tr>
<td></td>
<td>Make sure the power cable is connected properly to the product and power outlet.</td>
</tr>
<tr>
<td></td>
<td>If the signal from a connected device is not detected, the product automatically turns off after 10 to 15 minutes.</td>
</tr>
<tr>
<td>The screen display does not look normal.</td>
<td>Encoded video content may cause the display to appear corrupted in scenes featuring fast moving objects such as in a sports event or action video.</td>
</tr>
<tr>
<td></td>
<td>Low signal level or low picture quality may cause the display to appear corrupted. This does not mean the product is defective.</td>
</tr>
<tr>
<td></td>
<td>A cell phone within a distance of one-meter radius may cause static on analog and digital products.</td>
</tr>
<tr>
<td>The brightness and color do not look normal.</td>
<td>Go to Picture and adjust the screen settings such as Picture Mode, Color, Brightness and Sharpness.</td>
</tr>
<tr>
<td></td>
<td>Go to System and adjust the Eco Solution settings.</td>
</tr>
<tr>
<td></td>
<td>Reset the screen settings to the default settings.</td>
</tr>
<tr>
<td>Screen issue</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>I see red, green, and blue.</td>
<td>Check the cable connections.</td>
</tr>
<tr>
<td>This issue may happen when the panel of the product is defective. Contact a Samsung Service Center to resolve the issue.</td>
<td></td>
</tr>
<tr>
<td>The display looks unstable and then freezes.</td>
<td>The screen may freeze when a resolution other than the recommended resolution is used or if the signal is not stable. To resolve the issue, change the PC resolution to the recommended resolution.</td>
</tr>
<tr>
<td>The screen cannot be displayed in full screen.</td>
<td>A scaled SD (4:3) content file can cause black bars on both sides of an HD channel screen.</td>
</tr>
<tr>
<td></td>
<td>A video with an aspect ratio different from the product can cause a black bar to appear at the top and bottom of the screen.</td>
</tr>
<tr>
<td></td>
<td>Change the screen size setting to full screen on the product or source device.</td>
</tr>
</tbody>
</table>

<p>| Sound issue                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| There is no sound.                                                                                                                             | Check the connection of the audio cable or adjust the volume.   |
|                                                                                            | Check the volume.                                                |
| The volume is too low.                                                                                                                        | Adjust the volume.                                               |
|                                                                                            | If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software program. |</p>
<table>
<thead>
<tr>
<th>Sound issue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Video is available but there is no sound.</td>
<td>If an HDMI cable or a DP cable is connected, check the audio output settings on the PC.</td>
</tr>
<tr>
<td></td>
<td>Go to Sound and change Sound Output to Internal.</td>
</tr>
<tr>
<td></td>
<td>If a source device is used</td>
</tr>
<tr>
<td></td>
<td>• Make sure the audio cable is properly connected to the audio input port on the product.</td>
</tr>
<tr>
<td></td>
<td>• Check the audio output settings for the source device.</td>
</tr>
<tr>
<td></td>
<td>(For example, if your monitor is connected to HDMI, you may need to change the audio option of your video output device to HDMI.)</td>
</tr>
<tr>
<td></td>
<td>If a DVI-HDMI cable is used, a separate audio cable is required.</td>
</tr>
<tr>
<td></td>
<td>If the product has a headphone port, make sure nothing is connected to it.</td>
</tr>
<tr>
<td></td>
<td>Reconnect the power cable to the device and then reboot the device.</td>
</tr>
<tr>
<td>There is static coming from the speakers.</td>
<td>Check the cable connection. Make sure a video cable is not connected to an audio input port.</td>
</tr>
<tr>
<td></td>
<td>Check the signal strength after connecting a cable.</td>
</tr>
<tr>
<td></td>
<td>Low signal level can cause corrupted sound.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Remote control issue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The remote control does not work.</td>
<td>Make sure that the batteries are correctly in place (+/-).</td>
</tr>
<tr>
<td></td>
<td>Check if the batteries are flat.</td>
</tr>
<tr>
<td></td>
<td>Check for power failure.</td>
</tr>
<tr>
<td></td>
<td>Make sure that the power cord is connected.</td>
</tr>
<tr>
<td></td>
<td>Check for any special lighting or neon signs switched on in the vicinity.</td>
</tr>
</tbody>
</table>
### Source device issue

<table>
<thead>
<tr>
<th>Issue</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>A beeping sound is heard when my PC is booting.</td>
<td>If a beeping sound is heard when your PC is booting, have your PC serviced.</td>
</tr>
</tbody>
</table>

### Touch function issues

<table>
<thead>
<tr>
<th>Issue</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The icons can be touched but the drawings cannot.</td>
<td>Use the provided product-specific pen.</td>
</tr>
<tr>
<td>Touching does not work when PC connection is used.</td>
<td>Check whether the TOUCH OUT port on the product is connected to a USB port on the PC using a USB cable.</td>
</tr>
<tr>
<td>I use two pens, but they do not work well.</td>
<td>Make sure that there is enough space between the two pens at multi-touching.</td>
</tr>
<tr>
<td>Touches break, reaction speed gets slow, and so on.</td>
<td>Make sure that there are no foreign substances on the screen surface.</td>
</tr>
<tr>
<td></td>
<td>Check whether the screen is broken.</td>
</tr>
<tr>
<td></td>
<td>Make sure that the product is not exposed to direct sunlight.</td>
</tr>
</tbody>
</table>

### Other issue

<table>
<thead>
<tr>
<th>Issue</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The product smells like plastic.</td>
<td>The plastic smell is normal and disappears over time.</td>
</tr>
<tr>
<td>The monitor appears tilted.</td>
<td>Remove and then attach the stand again to the product.</td>
</tr>
<tr>
<td>Audio or video cuts out intermittently.</td>
<td>Check the cable connection and connect it again if required.</td>
</tr>
<tr>
<td></td>
<td>Use a standard cable.</td>
</tr>
<tr>
<td>Small particles are found on the edges of the product.</td>
<td>The particles are part of the product design. The product is not defective.</td>
</tr>
<tr>
<td>When I try to change the PC resolution, a message “The defined resolution is not currently supported.” appears.</td>
<td>The message “The defined resolution is not currently supported.” appears if the input source resolution exceeds the maximum resolution of the display. To resolve the issue, change the PC resolution to a resolution supported on the display.</td>
</tr>
</tbody>
</table>
### Other issue

<table>
<thead>
<tr>
<th>Issue</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no sound from the speakers in HDMI mode when a DVI-HDMI cable is connected.</td>
<td>DVI cables do not transmit sound data. Make sure to connect the audio cable to the correct input jack to enable audio.</td>
</tr>
<tr>
<td><strong>HDMI Black Level</strong> is not functioning properly on an HDMI device with YCbCr output.</td>
<td>This function is available only when a source device, such as a DVD player and STB, is connected to the product via an HDMI (RGB signal) cable.</td>
</tr>
<tr>
<td>There is no sound in HDMI mode.</td>
<td>Displayed picture colors may not look normal. Video or sound may not be available. This can occur if a source device that only supports an older version of the HDMI standard is connected to the product. If these issues occur, connect an audio cable along with the HDMI cable. Some PC graphics cards may not automatically recognize HDMI signals that do not include sound. In this case, manually select a sound input.</td>
</tr>
<tr>
<td>HDMI-CEC does not work.</td>
<td>To use several external devices compatible with the HDMI-CEC feature that are connected to the HDMI IN ports on the product, turn off the HDMI-CEC features on all the external devices. External devices include Blu-ray and DVD players. Operating an external device when its HDMI-CEC feature is enabled may automatically stop other external devices. To change HDMI-CEC settings, refer to the device user guide or contact the device manufacturer for assistance.</td>
</tr>
<tr>
<td>In power-saving mode, when the input source is DisplayPort, PC display settings cannot be saved.</td>
<td>Go to System → Power Control and set Max. Power Saving to Off. Alternatively, configure the PC display output settings again. Ensure the set is turned on.</td>
</tr>
<tr>
<td>When booting the PC with the input source set to DisplayPort, the BIOS and booting screens do not appear.</td>
<td>Boot the PC when the set is turned on or when the input source is not DisplayPort.</td>
</tr>
</tbody>
</table>
## Q & A

**Refer to the user manual for your PC or graphics card for further instructions on adjustment.**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can I change the frequency?</td>
<td>Set the frequency on your graphics card.</td>
</tr>
<tr>
<td></td>
<td>• Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust resolution → Advanced Settings → Monitor and adjust the frequency in Monitor Settings.</td>
</tr>
<tr>
<td></td>
<td>• Windows 8: Go to Settings → Control Panel → Appearance and Personalization → Display → Adjust resolution → Advanced Settings → Monitor and adjust the frequency in Monitor Settings.</td>
</tr>
<tr>
<td></td>
<td>• Windows 10: Go to Settings → System → Display → Advanced display settings → Display adapter properties → Monitor, and adjust Screen refresh rate under Monitor settings.</td>
</tr>
<tr>
<td>How can I change the resolution?</td>
<td>• Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust Resolution and adjust the resolution.</td>
</tr>
<tr>
<td></td>
<td>• Windows 8: Go to Settings → Control Panel → Appearance and Personalization → Display → Adjust Resolution and adjust the resolution.</td>
</tr>
<tr>
<td></td>
<td>• Windows 10: Go to Settings → System → Display → Advanced display settings, and adjust the resolution.</td>
</tr>
<tr>
<td>How do I set powersaving mode?</td>
<td>• Windows 7: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.</td>
</tr>
<tr>
<td></td>
<td>• Windows 8: Set power-saving mode in Settings → Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.</td>
</tr>
<tr>
<td></td>
<td>• Windows 10: Set power-saving mode in Settings → Personalization → Lock screen → Screen timeout settings → Power &amp; sleep or BIOS SETUP on the PC.</td>
</tr>
</tbody>
</table>
## General

<table>
<thead>
<tr>
<th>Model Name</th>
<th>QB65H-TR</th>
<th>QB75H-TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>65 CLASS (64.5 inches / 163.8 cm)</td>
<td>75 CLASS (74.5 inches / 189.3 cm)</td>
</tr>
<tr>
<td>Display area</td>
<td>1428.48 mm (H) x 803.52 mm (V)</td>
<td>1650.24 mm (H) x 928.26 mm (V)</td>
</tr>
<tr>
<td></td>
<td>56.2 inches (H) x 31.6 inches (V)</td>
<td>65.0 inches (H) x 36.5 inches (V)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>AC100-240V~ 50/60Hz</td>
<td>Refer to the label at the back of the product as the standard voltage can vary in different countries.</td>
</tr>
<tr>
<td>Environmental considerations</td>
<td>Operating temperature : -2 °F – 140 °F (0 °C – 40 °C)</td>
<td>For installing the housing, keep the internal temperature at 40 °C or below.</td>
</tr>
<tr>
<td></td>
<td>Humidity : 10% – 90%, non-condensing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Storage temperature : -4 °F – 113 °F (-20 °C – 45 °C)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humidity : 5% – 95%, non-condensing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Applicable before the product package is unpacked.</td>
<td></td>
</tr>
</tbody>
</table>

### Plug-and-Play
This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings. Monitor installation takes place automatically. However, you can customize the installation settings if desired.

### Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may appear brighter or darker on the panel. This does not affect product performance.

### This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

### For detailed device specifications, visit the Samsung Electronics website.

(USA only)
Dispose unwanted electronics through an approved recycler.
To find the nearest recycling location, go to our website:
www.samsung.com/recyclingdirect or call, (877) 278 - 0799
Preset Timing Modes

This product can be set to only one resolution for each screen size to obtain the optimum picture quality due to the nature of the panel. Using a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for your product.

<table>
<thead>
<tr>
<th>Model Name</th>
<th>QB65H-TR / QB75H-TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synchronization</td>
<td></td>
</tr>
<tr>
<td>Horizontal Frequency</td>
<td>30 - 81 kHz, 30 - 134 kHz (DisplayPort), 30 - 90 kHz (HDMI)</td>
</tr>
<tr>
<td>Vertical Frequency</td>
<td>48 - 75 Hz, 56 - 75 Hz (DisplayPort), 24 - 75 Hz (HDMI)</td>
</tr>
<tr>
<td>Resolution</td>
<td></td>
</tr>
<tr>
<td>DVI (Digital Visual Interface) Compliant Digital RGB</td>
<td></td>
</tr>
<tr>
<td>Optimum resolution</td>
<td>1920 x 1080 @ 60 Hz, 3840 x 2160 @ 60 Hz</td>
</tr>
<tr>
<td>Maximum resolution</td>
<td>1920 x 1080 @ 60 Hz, 3840 x 2160 @ 60 Hz</td>
</tr>
</tbody>
</table>

The screen will automatically be adjusted if a signal that belongs to the following standard signal modes is transmitted from your PC. If the signal transmitted from the PC does not belong to the standard signal modes, the screen may be blank with the power LED on. In such a case, change the settings according to the following table by referring to the graphics card user manual.
<table>
<thead>
<tr>
<th>Resolution</th>
<th>Horizontal Frequency (kHz)</th>
<th>Vertical Frequency (Hz)</th>
<th>Pixel Clock (MHz)</th>
<th>Sync Polarity (H/V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM, 640 x 480</td>
<td>31.469</td>
<td>59.940</td>
<td>25.175</td>
<td>-/-</td>
</tr>
<tr>
<td>IBM, 720 x 400</td>
<td>31.469</td>
<td>70.087</td>
<td>28.322</td>
<td>+/-</td>
</tr>
<tr>
<td>MAC, 640 x 480</td>
<td>35.000</td>
<td>66.667</td>
<td>30.240</td>
<td>-/-</td>
</tr>
<tr>
<td>MAC, 832 x 624</td>
<td>49.726</td>
<td>74.551</td>
<td>57.284</td>
<td>-/-</td>
</tr>
<tr>
<td>MAC, 1152 x 870</td>
<td>68.681</td>
<td>75.062</td>
<td>100.000</td>
<td>-/-</td>
</tr>
<tr>
<td>VESA, 640 x 480</td>
<td>31.469</td>
<td>59.940</td>
<td>25.175</td>
<td>-/-</td>
</tr>
<tr>
<td>VESA, 640 x 480</td>
<td>37.861</td>
<td>72.809</td>
<td>31.500</td>
<td>-/-</td>
</tr>
<tr>
<td>VESA, 800 x 600</td>
<td>37.500</td>
<td>75.000</td>
<td>31.500</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 800 x 600</td>
<td>35.156</td>
<td>56.250</td>
<td>36.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 800 x 600</td>
<td>37.879</td>
<td>60.317</td>
<td>40.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 800 x 600</td>
<td>48.077</td>
<td>72.188</td>
<td>50.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 800 x 600</td>
<td>46.875</td>
<td>75.000</td>
<td>49.500</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1024 x 768</td>
<td>48.363</td>
<td>60.004</td>
<td>65.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1024 x 768</td>
<td>56.476</td>
<td>70.069</td>
<td>75.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1024 x 768</td>
<td>60.023</td>
<td>75.029</td>
<td>78.750</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1152 x 864</td>
<td>67.500</td>
<td>75.000</td>
<td>108.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1280 x 720</td>
<td>45.000</td>
<td>60.000</td>
<td>74.250</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1280 x 800</td>
<td>49.702</td>
<td>59.810</td>
<td>83.500</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1280 x 1024</td>
<td>63.981</td>
<td>60.020</td>
<td>108.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1280 x 1024</td>
<td>79.976</td>
<td>75.025</td>
<td>135.000</td>
<td>+/-</td>
</tr>
<tr>
<td>Resolution</td>
<td>Horizontal Frequency (kHz)</td>
<td>Vertical Frequency (Hz)</td>
<td>Pixel Clock (MHz)</td>
<td>Sync Polarity (H/V)</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------------</td>
<td>-------------------------</td>
<td>-------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>VESA, 1366 x 768</td>
<td>47.712</td>
<td>59.790</td>
<td>85.500</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1440 x 900</td>
<td>55.935</td>
<td>59.887</td>
<td>106.500</td>
<td>-/+</td>
</tr>
<tr>
<td>VESA, 1600 x 900</td>
<td>60.000</td>
<td>60.000</td>
<td>108.000</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 1680 x 1050</td>
<td>65.290</td>
<td>59.954</td>
<td>146.250</td>
<td>-/+</td>
</tr>
<tr>
<td>VESA, 1920 x 1080</td>
<td>67.500</td>
<td>60.000</td>
<td>148.500</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 2560 x 1440</td>
<td>88.787</td>
<td>59.951</td>
<td>241.500</td>
<td>+/-</td>
</tr>
<tr>
<td>VESA, 3840 x 2160</td>
<td>133.313</td>
<td>59.997</td>
<td>533.250</td>
<td>+/-</td>
</tr>
<tr>
<td>CEA, 3840 x 2160</td>
<td>133.313</td>
<td>59.997</td>
<td>533.250</td>
<td>+/-</td>
</tr>
<tr>
<td>CEA, 3840 x 2160</td>
<td>67.500</td>
<td>30.000</td>
<td>297.000</td>
<td>-/-</td>
</tr>
<tr>
<td>CEA, 3840 x 2160</td>
<td>135.000</td>
<td>60.000</td>
<td>594.000</td>
<td>-/-</td>
</tr>
</tbody>
</table>
Appendix

Chapter 14

Responsibility for the Pay Service (Cost to Customers)

When the service is requested, in spite of in warranty, we may charge you for a visit from a service technician in the following cases.

Not a product defect

Cleaning of the product, Adjustment, Explanation, Re-installation and etc.

- If a service technician is requested to give instructions on how to use product or simply adjusts options without disassembling product.
- If a defect is caused by external environmental factors (Internet, Antenna, Wired Signal, etc.)
- If a product is reinstalled or devices are connected additionally after installing the purchased product for the first time.
- If a product is reinstalled to move to a different spot or to move to a different house.
- If the customer requests instructions on how to use another company's product.
- If the customer requests instructions on how to use the network or another company's program.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

- External impact or drop.
- Use of supplies or separately sold product unspecified by Samsung.
- Repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co., Ltd.
- Remodeling or repairing the product by customer.
- Using it with incorrect voltage or non-authorized electrical connections.
- Not following the "cautions" in User Manual.

Others

- If product fails by natural disaster. (lightning, fire, earthquake, flood damage, etc)
- If consumable components are all used up. (Battery, Toner, Fluorescent lights, Head, Vibrator, Lamp, Filter, Ribbon, etc.)

If customer requests a service in case the product has no defect, service fee may be charged. So please read User Manual first.
Prevention of Afterimage Burn-in

What is afterimage burn-in?

Afterimage burn-in should not occur when the panel is operating normally. Normal operation refers to a continuously changing video pattern. If the panel displays a fixed pattern for an extended period of time a slight voltage difference may occur between the electrodes in pixels that control the liquid crystals. Such a voltage difference between electrodes increases with time and makes the liquid crystals thinner. When this occurs, a previous image can remain on the screen when the pattern changes.

This information is a guide to prevent afterimage burn-in. Viewing a fixed screen for an extended period of time may cause afterimage burn-in. This problem is not included in warranty.

Recommended prevention practices

Viewing a fixed screen for an extended period of time may cause afterimage burn-ins or smudges. Turn off the product when it is not used for a long time, activate the Power Saving mode, or run a moving screen saver.

• Change the colors regularly.

Avoid combinations of a text color and background color of contrasting brightness.

Avoid using colors of contrasting brightness (black and white; gray).
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