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#### 1. Important

This electronic user's guide is intended for anyone who uses the Philips monitor. Take time to read this user manual before you use your monitor. It contains important information and notes regarding operating your monitor.

The Philips guarantee applies provided the product is handled properly for its intended use, in accordance with its operating instructions and upon presentation of the original invoice or cash receipt, indicating the date of purchase, dealer's name and model and production number of the product.

## 1.1 Safety precautions and maintenance

#### Warnings

Use of controls, adjustments or procedures other than those specified in this documentation may result in exposure to shock, electrical hazards and/or mechanical hazards.

Read and follow these instructions when connecting and using your computer monitor.

Excessive sound pressure from earphones and headphones can cause hearing loss. Adjustment of the equalizer to maximum increases the earphones and headphones output voltage and therefore the sound pressure level.

#### Operation

 Please Keep the monitor out of direct sunlight, very strong bright lights and away from any other heat source. Lengthy exposure to this type of environment may result in discoloration and damage to the monitor.

- Keep the display away from oil. Oil may damage the plastic cover of the display and void the warranty.
- Remove any object that could fall into ventilation holes or prevent proper cooling of the monitor's electronics.
- Do not block the ventilation holes on the cabinet.
- When positioning the monitor, make sure the power plug and outlet are easily accessible.
- If turning off the monitor by detaching the power cable or DC power cord, wait for 6 seconds before attaching the power cable or DC power cord for normal operation.
- Please use approved power cord provided by Philips all the time. If your power cord is missing, please contact with your local service center. (Please refer to Service contact information listed in Important information manual.)
- Operate under the specified power supply. Be sure to operate the monitor only with the specified power supply. Use of an incorrect voltage will cause malfunction and may cause fire or electric shock.
- Protect the cable. Do not pull or bend the power cable and signal cable. Do not place the monitor or any other heavy objects on the cables, if damaged, the cables may cause fire or electric shock.
- Do not subject the monitor to severe vibration or high impact conditions during operation.
- To avoid potential damage, for example the panel peeling from the bezel, ensure that the monitor does not tilt downward by more than -5 degrees. If the -5 degree downward

- tilt angle maximum is exceeded, the monitor damage will not be covered under warranty.
- Do not knock or drop the monitor during operation or transportation.
- The equipment will be not used in the home or similar installation environments where the equipment may be accessible to children.
- The Thunderbolt<sup>™</sup> port could only be connected to specify equipment with fire enclosure in compliance with IEC 62368-1 or IEC 60950-1.
- Excessive usage of monitor can cause eye discomfort, it's better to take shorter breaks more often at your workstation than longer breaks and less often; for example a 5-10 minute break after 50-60-minute continuous screen use is likely to be better than a 15-minute break every two hours. Try to keep your eyes from eye strain while using the screen for a constant period of time by:
  - Looking at something varying distances after a long period focusing on the screen.
  - Conscious Blinking often while you work.
  - Gently closing and rolling your eyes to relax.
  - Reposition your screen to appropriate height and angle according to your height.
  - Adjusting the brightness and contrast to appropriate level.
  - Adjusting the environment lighting similar to that of your screen brightness, avoid the fluorescent lighting, and surfaces that don't reflect too much light.
  - Seeing a doctor if your symptoms.

#### Maintenance

- To protect your monitor from possible damage, do not put excessive pressure on the LCD panel. When moving your monitor, grasp the frame to lift; do not lift the monitor by placing your hand or fingers on the LCD panel.
- Oil-based cleaning solutions may damage the plastic parts and void the warranty.
- Unplug the monitor if you are not going to use it for an extensive period of time.
- Unplug the monitor if you need to clean it with a slightly damp cloth.
   The screen may be wiped with a dry cloth when the power is off.
   However, never use organic solvent, such as, alcohol, or ammonia-based liquids to clean your monitor.
- To avoid the risk of shock or permanent damage to the set, do not expose the monitor to dust, rain, water, or excessive moisture environment.
- If your monitor gets wet, wipe it with dry cloth as soon as possible.
- If foreign substance or water gets in your monitor, please turn the power off immediately and disconnect the power cord. Then, remove the foreign substance or water, and send it to the maintenance center.
- Do not store or use the monitor in locations exposed to heat, direct sunlight or extreme cold.
- In order to maintain the best performance of your monitor and use it for a longer lifetime, please use the monitor in a location that falls within the following temperature and humidity ranges.

- Temperature: 0-35°C 32-95°F (HDR) 0-40°C 32-104°F (SDR)
- · Humidity: 20-80% RH

Important information for Burn-in/ Ghost image

- Always activate a moving screen saver program when you leave your monitor unattended. Always activate a periodic screen refresh application if your monitor will display unchanging static content. Uninterrupted display of still or static images over an extended period may cause "burn-in", also known as "after-imaging" or "ghost imaging", on your screen.
- "Burn-in", "after-imaging", or "ghost imaging" is a well-known phenomenon in LCD panel technology. In most cases, the "burn-in" or "after-imaging" or "ghost imaging" will disappear gradually over a period of time after the power has been switched off.

#### Warning

Failure to activate a screen saver, or a periodic screen refresh application may result in severe "burn-in" or "afterimage" or "ghost image" symptoms that will not disappear and cannot be repaired. The damage mentioned above is not covered under your warranty.

#### Service

- The casing cover should be opened only by qualified service personnel.
- If there is any need for any document for repair or integration, please contact with your local service center. (Please refer to Service contact information listed in Important information manual.)

- For transportation information, please refer to "Technical Specifications".
- Do not leave your monitor in a car/ trunk under direct sun light.

#### Note

Consult a service technician if the monitor does not operate normally, or you are not sure what procedure to take when the operating instructions given in this manual have been followed.

#### 1.2 Notational Descriptions

The following subsections describe notational conventions used in this document.

Notes, Cautions and Warnings
Throughout this guide, blocks of text
may be accompanied by an icon and
printed in bold or italic type. These
blocks contain notes, cautions or
warnings. They are used as follows:

#### Note

This icon indicates important information and tips that help you make better use of your computer system.

#### Caution

This icon indicates information that tells you how to avoid either potential damage to hardware or loss of data.

#### Warning

This icon indicates the potential for bodily harm and tells you how to avoid the problem.

Some warnings may appear in alternate formats and may not be accompanied by an icon. In such cases, the specific presentation of the warning is mandated by the relevant regulatory authority.

## 1.3 Disposal of product and packing material

Waste Electrical and Electronic Equipment-WEEE



This marking on the product or on its packaging illustrates that, under European Directive 2012/19/EU governing used electrical and electronic appliances, this product may not be disposed of with normal household waste. You are responsible for disposal of this equipment through a designated waste electrical and electronic equipment collection. To determine the locations for dropping off such waste electrical and electronic, contact your local government office, the waste disposal organization that serves your household or the store at which you purchased the product.

Your new monitor contains materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and to minimize the amount to be disposed of.

All redundant packing material has been omitted. We have done our utmost to make the packaging easily separable into mono materials.

Please find out about the local regulations on how to dispose of your old monitor and packing from your sales representative.

Taking back/Recycling Information for Customers

Philips establishes technically and economically viable objectives to optimize the environmental performance of the organization's product, service and activities.

From the planning, design and production stages, Philips emphasizes the important of making products that can easily be recycled. At Philips, end-of-life management primarily entails participation in national take-back initiatives and recycling programs whenever possible, preferably in cooperation with competitors, which recycle all materials (products and related packaging material) in accordance with all Environmental Laws and taking back program with the contractor company.

Your display is manufactured with high quality materials and components which can be recycled and reused.

To learn more about our recycling program please visit

http://www.philips.com/a-w/about/sustainability.html

## 2. Setting up the monitor

#### 2.1 Installation

#### Package contents















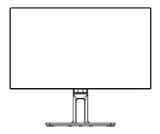


\*Different according to region

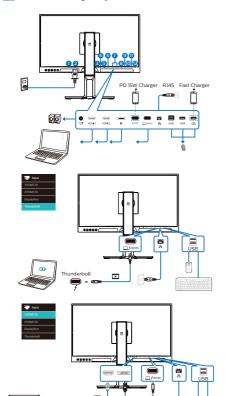
- 2 Install the base
- Hold the stand with both hands. Gently attach the stand to the VESA mount area until the latch locks the stand.



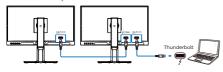
2. After stand installation, hold the stand with both hands, then lift the monitor.



#### 3 Connecting to your PC



#### Multi-stream transport



- Power Switch
- 2 AC power input
- 3 Audio out
- 4 HDMI 1 input
- 6 HDMI 2 input
- 6 DisplayPort input
- Thunderbolt<sup>™</sup> 4 input ☐ **f**(90w) / Thunderbolt<sup>™</sup> 4 output **f**(95w)

- Thunderbolt<sup>™</sup> 4 input □ f<sup>(90W)</sup>: Video output (ALT mode DP 1.4), PD 90W, data transfer.
- Thunderbolt<sup>™</sup> 4 output ∮(15W): PD
   15W, downstream.
- Thunderbolt daisy chain: first plug in Thunderbolt input ☐ f(90W), then plug in Thunderbolt output f(15W) for signal output. (Refer to chapter: Daisy-chain function)
- 8 RJ45 input
- 9 USB downstream
- 10 USB downstream
- 11 USB downstream/USB fast charger
- 12 Kensington anti-theft lock

#### Connect to PC

- 1. Connect the power cord to the back of the monitor firmly.
- 2. Turn off your computer and unplug its power cable.
- Connect the monitor signal cable to the video connector on the back of your computer.
- Plug the power cord of your computer and your monitor into a nearby outlet.
- Turn on your computer and monitor. If the monitor displays an image, installation is complete.

#### 4 USB driver installation for RJ45

Before using the Thunderbolt<sup>™</sup> docking display, please ensure to install the USB driver.

You can go to Philips website support page to download the "LAN Drivers".

Please follow the steps for the installation:

- 1. Install the LAN driver that matches your system.
- Double click driver to install, and follow Window's instructions to proceed with installation.
- 3. It will show "success" when the installation is finished.
- 4. You must reboot your computer after the installation has completed.
- Now you will be able to see "Realtek USB Ethernet Network Adapter" from your program installed list.
- We recommend to periodically visit the above web link to check for the availability of the most updated driver.

#### ♠ Note

Please contact Philips service hotline for Mac address clone tool as necessary.

#### 5 USB hub

To comply with International energy standards, the USB hub/ports of this display are disabled during Standby and Off modes.

Connected USB devices will not work in this state.

To permanently put the USB function in "ON" state, please go to OSD Menu, then select "USB standby mode", and switch it to "ON" state. Somehow if your monitor reset to factory setting, ensure to select "USB standby mode" to "ON" state in OSD menu.

#### 6 USB charging

This display has USB ports capable of standard power output including some with USB charging function (identifiable with power icon use). You can use these

ports to charge your Smart phone or power your external HDD, for example. The display must be powered ON at all times to be able to use this function.

Some select Philips displays may not Power or Charge your device when it enters to "Sleep/Standby" mode (White power LED blinking). In that case, please enter to OSD Menu and select "USB Standby Mode", then, turn the function to "ON" mode (default=OFF). This will then keep the USB power and charging functions active even when the monitor is in sleep/standby mode.



#### Note

If you Turn OFF your monitor via the power switch at any given time, all the USB ports will power OFF.

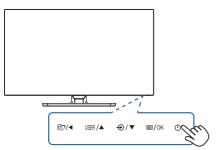
#### Warning

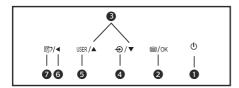
USB 2.4Ghz wireless devices, such as, wireless mouse, keyboard, and headphones, maybe have interference by the high-speed signal of USB3.2 devices, which may result in a decreased efficiency of the radio transmission. Should this happen, please try the following methods to help reduce the effects of interference.

- Try to keep USB2.0 receivers away from USB3.2 connection port.
- Use a standard USB extension cable or USB hub to increase the space between your wireless receiver and the USB3.2 connection port.

#### 2.2 Operating the monitor

1 Description of the control buttons





0	Ф	Switch monitor's power ON and OFF.
2	■/OK	Access the OSD menu. Confirm the OSD adjustment.
8	$\blacksquare$	Adjust the OSD menu.
4	USER	User preference key. Customize your own preference function from OSD to become the "user key".
6	€	Change the signal input source.
6	4	Return to previous OSD level.

SmartImage. There are multiple selections:
EasyRead, Office,
Photo, Movie, Game,
Economy, LowBlue Mode,
SmartUniformity, Off.
When the monitor receives
HDR signal, SmartImage
will show HDR menu: There are multiple selections:
HDR Premium, HDR Effect,
HDR Warm, DisplayHDR
1400, HDR Basic, Off.

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2 Description of the On Screen Display

What is On-Screen Display (OSD)?

On-Screen Display (OSD) is a feature in all Philips LCD monitors. It allows an end user to adjust screen performance or select functions of the monitors directly through an on-screen instruction window. A user friendly on screen display interface is shown as below:

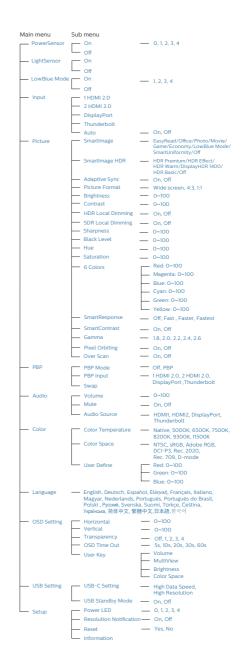


Basic and simple instruction on the control keys

In the OSD shown above, you can press ▼ ▲ buttons at the rear of the monitor to move the cursor, and press OK button to confirm the choice or change.

#### The OSD Menu

Below is an overall view of the structure of the On-Screen Display. You can use this as a reference when you want to work your way around the different adjustments later on.



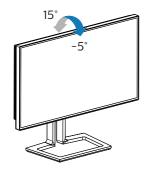
#### 3 Resolution notification

This monitor is designed for optimal performance at its native resolution, 3840 x 2160. When the monitor is powered on at a different resolution, an alert is displayed on screen: Use 3840 x 2160 for best results.

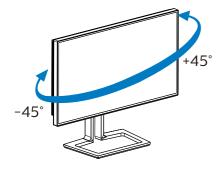
Display of the native resolution alert can be switched off from Setup in the OSD (On Screen Display) menu.

#### 4 Physical Function

Tilt



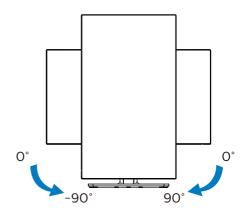
#### Swivel



#### Height adjustment



#### **Pivot**



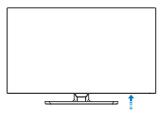
#### Warning

- To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

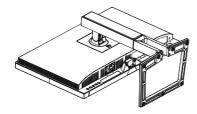
## 2.3 Remove the Base Assembly for VESA Mounting

Before you start disassembling the monitor base, please follow the instructions below to avoid any possible damage or injury.

1. Extend the monitor base to its maximum height.



Place the monitor face down on a smooth surface. Pay attention not to scratch or damage the screen. Then lift the monitor stand.

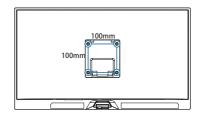


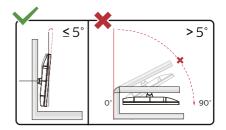
While keeping the release button pressed, tilt the base and slide it out.



#### Note

This monitor accepts a 100mm x 100mm VESA-Compliant mounting interface. VESA Mounting Screw M4. Always contact manufacturer for wall-mount installation.



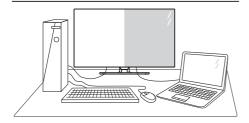


\* Display design may differ from those illustrated.

#### Warning

- To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

#### 2.4 MultiView



#### 1 What is it?

Multiview enables active variety connect and view so that you can work with multiple devices like PC and Notebook side-by-side simultaneously, making complex multi-tasking work a breeze.

#### Why do I need it?

With the ultra high resolution Philips MultiView display, you can experience a world of connectivity in a comfortable way in the office or at home. With this display, you can conveniently enjoy multiple content sources at one screen. For example: You may want to keep an eye on the live news video feed with audio in the small window, while working on your latest blog, or you may want to edit an Excel file from your Ultrabook, while logged into secured company intranet to access files from a desktop.

- 3 How to enable MultiView by OSD menu?
- 1. Press button at the rear of the monitor to enter OSD Menu Screen.



- 2. Press ▲ or ▼ button to select main menu [PBP], then press OK button.
- 3. Press ▲ or ▼ button to select [PBP Mode], then press OK button.
- 4. Press ▲ or ▼ button to select [PBP].
- 5. Now you can move backward to set the [PBP Mode], [PBP Input], [Swap].
- Press OK button to confirm your selection.
- 4 MultiView in OSD menu [PBP]: Picture by Picture

Open up a sub-window side-by-side of other signal sources.



When the sub source is not detected.



#### Note

The black strip shows on the top and the bottom of the screen for the correct aspect ratio when in the PBP mode. If you expect to see full screen side by side, adjust your devices resolutions as pop up attention resolution, you will be able to see 2 devices source screen project to this display side by side without black strips.

 PBP Input: There are different video inputs to choose as the sub display source: [1 HDMI 2.0], [2 HDMI 2.0], [DisplayPort] and [Thunderbolt].

Please refer below table for compatibility of main/sub input source.

(++ <b>&gt;</b> /		SUB SOURCE POSSIBILITY (xl)			LITY (xl)
<b>Multi</b> View	Inputs	1 HDMI 2.0	2 HDMI 2.0	DisplayPort	Thunderbolt <sup>™</sup> 4
MAIN	1 HDMI 2.0	•	•	•	•
SOURCE	2 HDMI 2.0	•	•	•	•
	DisplayPort	•	•	•	•
(xl)	Thunderbolt <sup>™</sup> 4	•	•	•	•

 Swap: The main picture source and the sub picture source swapped on the display.

Swap A and B source in [PBP] mode:



· Off: Stop MultiView function.



**⊜** Note

When you do the SWAP function, the video and its audio source will swap at the same time.

#### 3. Image Optimization

#### 3.1 SmartImage

#### 1 What is it?

SmartImage provides presets that optimize display for different types of content, dynamically adjusting brightness, contrast, color and sharpness in real time. Whether you're working with text applications, displaying images or watching a video, Philips SmartImage delivers great optimized monitor performance.

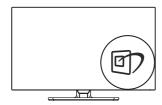
#### 2 Why do I need it?

You want a monitor that delivers optimized display all your favorite types of content, SmartImage software dynamically adjust brightness, contrast, color and sharpness in real time to enhance your monitor viewing experience.

#### 3 How does it work?

SmartImage is an exclusive, leading edge Philips technology that analyzes the content displayed on your screen. Based on a scenario you select, SmartImage dynamically enhances the contrast, color saturation and sharpness of images to enhance the contents being displayed – all in real time with the press of a single button.

4 How to enable SmartImage?



1. Press to launch the SmartImage on screen display.

- Keep pressing ▼ ▲ to toggle among EasyRead, Office, Photo, Movie, Game, Economy, LowBlue Mode, SmartUniformity, Off.
- The SmartImage on screen display will remain on screen for 5 seconds, or you can also press "OK" to make confirmation.

There are multiple selections: EasyRead, Office, Photo, Movie, Game, Economy, LowBlue Mode, SmartUniformity, Off.



- EasyRead: Helps improve reading of text based application like PDF ebooks. By using a special algorithm which increases the contrast and boundary sharpness of text content, the display is optimized for a stress-free reading by adjusting the brightness, contrast and color temperature of the monitor.
- Office: Enhances text and dampens brightness to increase readability and reduce eye strain. This mode significantly enhances readability and productivity when you're working with spreadsheets, PDF files, scanned articles or other general office applications.
- Photo: This profile combines color saturation, dynamic contrast and

- sharpness enhancement to display photos and other images with outstanding clarity in vibrant colors all without artifacts and faded colors.
- Movie: Ramped up luminance, deepened color saturation, dynamic contrast and razor sharpness displays every details in darker areas of your videos without color washout in brighter areas maintaining a dynamic natural values for the ultimate video display.
- Game: Turn on over drive circuit for best response time, reduce jaggy edges for fast moving objects on screen, enhance contrast ratio for bright and dark scheme, this profile delivers the best gaming experience for gamers.
- Economy: Under this profile, brightness, contrast are adjusted and backlighting finetuned for just right display of everyday office applications and lower power consumption.
- LowBlue Mode: LowBlue Mode for easy on-the-eyes productivity Studies have shown that just as ultra-violet rays can cause eye damage, shortwave length blue light rays from LED displays can cause eye damage and affect vision over time. Developed for wellbeing, Philips LowBlue Mode setting uses a smart software technology to reduce harmful shortwave blue light.
- SmartUniformity: Fluctuations in brightness and color on different parts of a screen are a common phenomenon among LCD monitors. Typical uniformity is measured around 75-80%. By enabling Philips SmartUniformity feature, display uniformity is incr eased to above 95%. This produces more consistent and true images.

 Off: No optimization by SmartImage.



Philips LowBlue mode, mode 2 compliance with TUV Low Blue Light certification, you can have this mode by simply press the hotkey ♠, then press ★ ★ to select LowBlue Mode, see above SmartImage selection steps.

When this display receives HDR signal from the connected device, select a picture mode that best fits your needs.

There are multiple selections: HDR Premium, HDR Effect, HDR Warm, DisplayHDR 1400, HDR Basic, Off.



- HDR Premium: Optimizes contrast and brightness for the most vivid and immersive visual experience.
- HDR Effect: Increases contrast and brightness for a more realistic viewing experience.
- HDR Warm: Shifts the color temperature for a warmer visual experience.
- DisplayHDR 1400: VESA DisplayHDR 1400 certified.
- HDR Basic: Basic HDR setting for HDR content.
- Off: No optimization by SmartImage HDR.



To switch off HDR function, please disable from Input device and its content.

Inconsistent HDR settings between

## input device and monitor may cause unsatisfying images.

#### 3.2 SmartContrast

#### 1 What is it?

Unique technology that dynamically analyzes displayed content and automatically optimizes a Monitor's contrast ratio for maximum visual clarity and viewing enjoyment, stepping up backlighting for clearer, crisper and brighter images or dimming backlighting for clear display of images on dark backgrounds.

#### Why do I need it?

You want the very best visual clarity and viewing comfort for every type of content. SmartContrast dynamically controls contrast and adjusts backlighting for clear, crisp, bright gaming and video images or displays clear, readable text for office work. By reducing your monitor's power consumption, you save on energy costs and extend the lifetime of your monitor.

#### 3 How does it work?

When you activate SmartContrast, it will analyse the content you are displaying in real time to adjust colors and control backlight intensity. This function will dynamically enhance contrast for a great entertainment experience when viewing videos or playing games.

## 3.3 Customize color space and color value

You can manually adjust each color value or select the appropriate color space mode to properly display the content you are viewing.

- Manually adjust individual color value:
- 1. Press button to enter OSD menu.
- Press ▲ or ▼ button to select main menu [Picture], then press OK button.
- 3. Press ▲ or ▼ button to select [6 Colors].
- 4. Select one of colors, then adjust the value.
- 5. Press **OK** button to confirm your selection.
- Select appropriate color space mode to fit the content you're viewing:
- 1. Press button to enter OSD menu.
- 2. Press ▲ or ▼ button to select main menu [Color], then press OK button.
- Press ▲ or ▼ button to select [Color Space].
- 4. Select one of colors modes.
- 5. Press **OK** button to confirm your selection.
- 3 There are multiple selections:
- NTSC: Analog video.
- sRGB: Most personal computer applications and games, Internet, and web design.
- Adobe RGB: Graphics applications.
- DCI-P3: Digital cinema projectors, some movies and games, and Apple products. Photography.
- Rec. 2020: UHD videos.
- Rec. 709: HD videos.

• D-mode: DICOM mode, enhance greyscale level performance

#### Note

HDR and color space mode cannot be enabled simultaneously. Please disable HDR before you select one of color space modes.

#### 3.4 LightSensor

#### 1 What is it?

LightSensor is a unique and intelligent way of optimizing picture quality by measuring and analyzing the incoming signal to automatically adjust picture quality settings. LightSensor uses a sensor to adjust the picture brightness depending on the room light conditions.

2 How to enable LightSensor?



- 1. Press button at the rear of the monitor to enter OSD menu screen.
- Press ▲ or ▼ button to select main menu [LightSensor], then press button OK.
- Press ▲ or ▼ button to turn on or off the LightSensor.

#### 3.5 Adaptive Sync



#### Adaptive Sync

PC gaming has long been an imperfect experience because GPUs and monitors update at different rates. Sometimes a GPU can render many new pictures during a single update of the monitor, and the monitor will show pieces of each picture as a single image. This is called "tearing." Gamers can fix tearing with a feature called "v-sync," but the image can become jerky as the GPU waits on the monitor to call for an update before delivering new pictures.

The responsiveness of mouse input and overall frames per second are reduced with v-sync, too. Adaptive Sync technology eliminates all of these problems by letting the GPU update the monitor the moment a new picture is ready, leaving gamers with unbelievably smooth, responsive, tearing-free games.

#### 3.6 HDR

HDR Settings in Windows10 system.

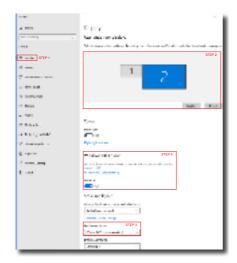
#### Steps

- Right click on the desktop, enter to Display settings.
- 2. Select the display/monitor.
- 3. Select an HDR-capable display under Rearrange your displays.
- 4. Select Windows HD Color settings.
- 5. Adjust Brightness for SDR content.

#### Note

Windows10 edition is required; always upgrade to the most updated version. Below linkage is for the further more information from mircrosoft official website.

https://support.microsoft.com/enau/help/4040263/windows-10-hdradvanced-color-settings





#### ■ Note

- 1. To switch off HDR function, please disable from Input device and its content. Inconsistent HDR settings between input device and monitor may cause unsatisfying images.
- 2. There is a fan inside of the monitor which will be automatically enabled when the monitor reach certain temperature and helps to cool down the temperature inside of the monitor.
- If the monitor turn off or power saving or no signal states, the fan function will turn off.

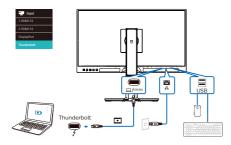
# 4. Thunderbolt<sup>™</sup> docking display introduction

Philips Thunderbolt<sup>™</sup> docking monitors deliver universal port replication, for a simple, clutter-free, notebook connection.

Securely connect to networks, transmit data, video and audio from laptop only using a single cable.

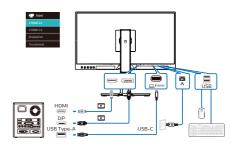
## 4.1 Docking through Thunderbolt™ 4

- Connect the Thunderbolt<sup>™</sup> 4 cable to the Thunderbolt input ☐ f(90W) port on the monitor and to your PC. It can transmit video, audio, data, network, power through Thunderbolt<sup>™</sup> cable.
- 2. Press ⊕ at the rear of the monitor to enter input menu screen.
- 3. Press ▲ or ▼ button to select [Thunderbolt].



#### 4.2 Docking through USB-C

- Connect HDMI or DisplayPort to the monitor and to your PC for video input.
- 3. Press ⊕ at the rear of the monitor to enter input menu screen.
- Press ▲ or ▼ button to select [1 HDMI 2.0], [2 HDMI 2.0] or [DisplayPort].



#### Note

When connect your monitor to the PC with Thunderbolt or USB C-A cable, your monitor screen probably show as the extend screen. To call out the main screen on your monitor, hold the Windows key and press P twice.

(Windows key ♣ + P + P) If you still cannot see the main screen on your monitor, hold the Windows key ♣ and press P. All your options pop-up on the right side, then select "PC screen only" or "Duplicated".

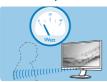
#### 5. PowerSensor™

#### How does it work?

- PowerSensor works on principle of transmission and reception of harmless "infrared" signals in order to detect user-presence.
- When the user is in front of the monitor, the monitor operates normally, at the predetermined settings that the user has set- i.e. brightness, contrast, color, etc
- Assuming that the monitor was set to 100% of brightness for example, when the user leaves his seat and is no longer in front of the monitor, the monitor automatically reduces the power consumption upto 80%.

#### User present in front User not present





Power consumption as illustrated above is for reference purpose only

#### 2 Setting

#### Default settings

PowerSensor is designed to detect the presence of the user located between 30 and 100 cm (12 and 40 inches) from the display and within five degrees left or right of the monitor.

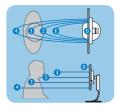
#### **Custom settings**

If you prefer to be in a position outside the perimeters listed above, choose a higher strength signal for optimal detection efficiency: The higher the setting, the stronger the detection signal. For maximum PowerSensor efficiency and proper detection, please position yourself directly in front of your monitor.

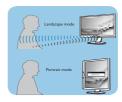
 If you choose to position yourself more than 100 cm or 40 inches

- from the monitor use the maximum detection signal for distances up to 120 cm or 47 inches. (Setting 4)
- Since some dark colored clothing tends to absorb infrared signals even when the user is within 100 cm or 40 inches of the display, step up signal strength when wearing black or other dark clothes.

#### Sensor distance



#### Landscape/Portrait mode



Above illustrations are for reference purpose only, may not reflect the exact display of this model.

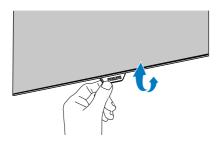
#### 3 How to adjust settings?

If PowerSensor is not operating correctly inside or outside the default range, here's how to fine-tune detection:

- Press OK to show the OSD (On Screen Display) menu
- Press ▼ to select the option "PowerSensor" then press OK to enter PowerSensor setting.
- · You will find the adjustment bar.
- Adjust the PowerSensor detection adjustment to Setting 4 and press OK.
- Test the new setup to see if PowerSensor properly detects you in your current position.

 PowerSensor function is designed to work in Landscape mode (horizontal position) only. After PowerSensor turn on it, it will automatically turn Off if the monitor is used in Portrait mode (90 degree/vertical position); it will automatically turn ON if monitor is returned to its default Landscape position.

#### Unfold PowerSensor



 If the PowerSensor structure in your monitor is of the foldable type, please ensure it is unfolded in order for it to work correctly. You can turn the PowerSensor On or Off via the OSD control. Please note that in the folded position, the PowerSensor will not turn On even if the OSD is set to "On" mode.

#### Note

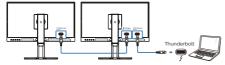
A manually selected PowerSensor mode will remain operational unless and until it is readjusted or the default mode is recalled. If you find that the PowerSensor is excessively sensitive to nearby motion for some reason, please adjust to a lower signal strength. Keep sensor lens clean, if the sensor lens is dirty, wipe it with alcohol to avoid reducing of distance detection.

#### 6. Daisy-chain function

Thunderbolt<sup>™</sup> 4 supports Daisy Chain. If your laptop /Desktop/Display Monitor supports Thunderbolt<sup>™</sup> 4, you can use Thunderbolt<sup>™</sup> 4 for multi-screen connections (Daisy Chain).

To daisy-chain monitors, first to check below:

- Connect the Thunderbolt<sup>™</sup> 4 cable to the Thunderbolt input ☐ f<sup>(90W)</sup> port on the first monitor and to your PC.
- Connect an another cable to the Thunderbolt output f(15W) port on the first monitor, and Thunderbolt input port on the secondary monitor.



#### Note

- The maximum number of connectible monitors may vary depending on GPU performance.
- To enable HDR on the monitor, make sure the connected monitor is in extended mode from your PC.
- To turn on HDR function: Extend the display by choosing extended mode on the setting of your laptop/PC. Alternatively, duplicate the displays by selecting Clone mode on your laptop/PC.
  - Extend mode: Both monitors can support full 4K HDR at 60Hz with 10bit color.
  - Clone mode: There is one monitor support 4K HDR at 60Hz with 10bit color, cloned display support up to 4K@60Hz, 8bit only.

# 7. Designs to prevent computer vision syndrome (CVS)

Philips monitor is designed to prevent eye strain caused by prolonged computer use.

Follow below instructions and use Philips monitor to efficiently reduce fatigue and maximum working productivity.

- 1. Appropriate environment lighting:
  - Adjusting the environment lighting similar to that of your screen brightness, avoid the fluorescent lighting, and surfaces that don't reflect too much light.
  - Adjusting the brightness and contrast to appropriate level.
- 2. Good working habits:
  - Excessive usage of monitor can cause eye discomfort, it's better to take shorter breaks more often at your workstation than longer breaks and less often; for example a 5-10 minute break after 50-60-minute continuous screen use is likely to be better than a 15-minute break every two hours.
  - Looking at something varying distances after a long period focusing on the screen.
  - Gently closing and rolling your eyes to relax.
  - Conscious blinking often while working.

- Gently stretch your neck, and slowly tilt your head forward, backward, side for pain relief.
- 3. Ideal working posture
  - Reposition your screen to appropriate height and angle according to your height.
- 4. Choose Philips monitor for easy-oneyes.
  - Anti-glare screen: Anti-glare screen efficiently reduces annoying and distracting reflections that caused eye fatigue.
  - LowBlue mode: Blue light may cause eye strains. Philips LowBlue mode allows you to set different blue light filter levels for variety working situation.
  - EasyRead mode for a paperlike reading experience, giving a more comfortable viewing experience while dealing with long documents on the screen.

### 8. Technical Specifications

Picture/Display		
Monitor Panel Type	IPS Technology	
Backlight	Mini LED backlight	
Panel Size	27" W (68.6 cm)	
Aspect Ratio	16:9	
Pixel Pitch	0.1554 (H) mm x 0.1554 (V) mm	
Display Screen Coating	Anti-Glare, 3H, Haze 25%	
Contrast Ratio(typ.)	1300:1	
Optimum Resolution	3840 x 2160 @ 60 Hz	
Viewing Angle	178° (H) / 178° (V) @ C/R > 10 (typ.)	
Display Colors	1.07 B (8 bits+Hi-FRC)	
Picture Enhancement	SmartImage / SmartImage HDR	
Vertical Refresh Rate	HDMI/DP: 40 Hz - 60 Hz Thunderbolt <sup>TM</sup> 4: 23 Hz - 75 Hz	
Horizontal Frequency	30 kHz - 140 kHz	
NTSC (CIE1976)*	121% (typ.)	
AdobeRGB (CIE1976)*	99.2% (typ.)	
sRGB (CIE1931)*	154% (typ.)	
Color Gamut	YES	
LowBlue Mode	YES	
EasyRead	YES	
SmartUniformity	YES	
Delta E	<ul> <li>An average Delta-E is less than 1 when local dimming is turned off.</li> <li>An average Delta-E is less than 2 when local dimming is turned on.</li> </ul>	
HDR	VESA DisplayHDR 1400 certified	
Adaptive Sync	YES	
Connectivity		
Connectors	2x HDMI 2.0 (HDCP 2.2/ HDCP 1.4) 1x DisplayPort 1.4 (HDCP 2.2/ HDCP 1.4) 2x Thunderbolt™ 4 (Thunderbolt input x1, Thunderbolt output x1) 1x RJ-45, Ethernet LAN (10M/100M/1000M) 4x USB-A, downstream with x1 fast charge BC 1.2 1x Audio out	
Signal Input source	HDMI, DisplayPort, Thunderbolt <sup>™</sup> 4 <b>☐ /</b> (90w)	
Signal output	Thunderbolt <sup>™</sup> 4 <b>f</b> (15W) (Refer to Daisy-chain function)	
USB SuperSpeed	USB 3.2 Gen2, 10 Gbps	

Thunderbolt™	Thunderbolt <sup>™</sup> 4 (input) (upstream, DisplayPort Alt mode, HDCP 2.2/ HDCP 1.4, PD 90W) Thunderbolt <sup>™</sup> 4 (output) (downstream, PD 15W)				
Power Delivery	90W (5V 20V/4.5, • Thunder (5V/3A)	<ul> <li>Thunderbolt<sup>™</sup> 4 (input): USB PD version 3.0, up to 90W (5V/3A, 7V/3A, 9V/3A, 10V/3A, 12V/3A, 15V/3A, 20V/4.5A)</li> <li>Thunderbolt<sup>™</sup> 4 (output): USB PD version 3.0, 15W</li> </ul>			
Sync input	Separate Sy	/nc			
Convenience					
User Convenience	@7/◀ USE	R <b>/</b> ▲	<b>⊕</b> /▼	■/ok	(U
Built-in speaker	3W x 2				
MultiView	PBP mode,				
OSD Languages	English, German, Spanish, Greek, French, Italian, Hungarian, Dutch, Portuguese, Brazil Portuguese, Polish, Russian, Swedish, Finnish, Turkish, Czech, Ukranian, Simplified Chinese, Traditional Chinese, Japanese, Korean				
Other Convenience	VESA mour	VESA mount (100 x 100 mm), Kensington Lock			
Plug & Play Compatibility	DDC/CI, sRGB, Windows 10/8.1/8/7, Mac OS X				
Stand					
Tilt	-5 / +15 deg	gree			
Swivel	-45 / +45 d	egree			
Height adjustment	130 mm				
Pivot	-90 / +90 degree				
Power					
Consumption	AC Input Voltage at 100VAC , 50	OHz	AC Input Voltage a 115VAC ,	at	AC Input Voltage at 230VAC, 50Hz
Normal Operation	74.3 W (typ		74.5 W (t		75.6 W (typ.)
Sleep (Standby mode)	0.3 W (typ.)		0.3 W (ty		0.3 W (typ.)
Off mode	0.3 W (typ.)	)	0.3 W (ty	/p.)	0.3 W (typ.)
Off mode (AC switch)	0 W		0 W		O W
Heat Dissipation*	AC Input Voltage at 100VAC, 50		AC Input Voltage a 115VAC ,	at	AC Input Voltage at 230VAC , 50Hz
Normal Operation	253.58 BTU (typ.)		254.27 B (typ.)		258.02 BTU/hr (typ.)
Sleep (Standby mode)	1.02 BTU/h (typ.)		1.02 BTU (typ.)		1.02 BTU/hr (typ.)
Off mode	1.02 BTU/h (typ.)	r	1.02 BTU (typ.)	/hr	1.02 BTU/hr (typ.)

Off mode (AC switch) On Mode (ECO mode) 45.1 W (typ.) Power Sensor 14.0 W (typ.) Power LED indicator Power Supply Built-in, 100-240V AC, 50/60Hz  Dimensions Product with stand (WXHXD) Product without stand (WXHXD) Product with packaging (WXHXD) Weight Product without stand Product without stand Operating Condition Temperature range (operation) Relative humidity (operation) Relative humidity (Non-operation) Relative humidity (Non-operation) Atmospheric pressure (Non-operation) Atmospheric pressure (Non-operation) Environmental and energy ROHS Power Supply At (typ.) On mode: White, Standby/Sleep mode: White (blinking) Pon mode: White, Standby/Sleep mode: White (blinking) Pon mode: White, Standby/Sleep mode: White (blinking) Pon mode: White, Standby/Sleep mode: White (blinking) Product with stand 613 x 369 x 68 mm  735 x 423 x 285 mm  735 x 423 x 285 mm  700 to 88  Product with packaging 14.46 kg  Poperating Condition  Temperature range O°C to 35°C (HDR) O°C to 40°C (SDR) Relative humidity (operation) O°C to 40°C (SDR)  Relative humidity (operation) For to 40°C (SDR)  Relative humidity (operation)  Temperature range (Non-operation)  Temperature range (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  For to 40°C (SDR)  Temperature range (Non-operation)  Atmospheric pressure (Non-operation)					
Power Sensor 14.0 W (typ.)  Power LED indicator On mode: White, Standby/Sleep mode: White (blinking)  Power Supply Built-in, 100-240V AC, 50/60Hz  Dimensions  Product with stand (WxHxD) 613 x 515 x 204 mm  (WxHxD) 735 x 423 x 285 mm  Weight  Product with packaging (WxHxD) 7.02 kg  Product with stand 9.43 kg  Product with packaging 14.46 kg  Operating Condition  Temperature range (operation) 0°C to 35°C (HDR) (operation) 0°C to 40°C (SDR)  Relative humidity (operation) 700 to 1060hPa  Temperature range (Non-operation) 700 to 1060hPa  Temperature range (Non-operation) 500 to 1060hPa  Environmental and energy ROHS YES  Packaging 100% recyclable  Specific Substances 100% PVC BFR free housing	Off mode (AC switch)	O BTU/hr O BTU/hr O BTU/hr			
Power LED indicator  On mode: White, Standby/Sleep mode: White (blinking)  Power Supply  Built-in, 100-240V AC, 50/60Hz  Dimensions  Product with stand (WxHxD)  Product without stand (WxHxD)  Product with packaging (WxHxD)  Product with packaging (WxHxD)  Weight  Product with packaging 14.46 kg  Operating Condition  Temperature range (operation)  Relative humidity (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging 100% recyclable  Specific Substances  I 00% PVC BFR free housing		45.1 W (typ.)			
Power LED Indicator (blinking) Power Supply Built-in, 100-240V AC, 50/60Hz  Dimensions Product with stand (WxHxD) Froduct without stand (WxHxD) Product with packaging (WxHxD) Product with packaging (WxHxD)  Product with stand Product with packaging (WxHxD)  Weight Product without stand 7.02 kg Product with packaging 14.46 kg  Operating Condition Temperature range (operation) Relative humidity (operation) Atmospheric pressure (Non-operation) Relative humidity (Non-operation) Relative humidity (Non-operation) Relative humidity (Non-operation) Relative humidity (Non-operation) For to 40°C (SDR)  Relative humidity (Non-operation) Relative humidity (Non-operation) For to 60°C  To 0 to 1060hPa  10% to 90%  Atmospheric pressure (Non-operation)  Environmental and energy ROHS Packaging 100% recyclable Specific Substances	PowerSensor				
Dimensions Product with stand (WxHxD) Product without stand (WxHxD) Product with packaging (WxHxD) Product with packaging (WxHxD)  Weight Product with stand Product with stand Product with packaging Product with stand Product with packaging Product wit	Power LED indicator				
Product with stand (WxHxD)  Product without stand (WxHxD)  Product with packaging (WxHxD)  Product with packaging (WxHxD)  Product with stand  Product with stand  Product with stand  Product without stand  Product with packaging 17.02 kg  Product with packaging 14.46 kg  Operating Condition  Temperature range (operation)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Fenuire range (Non-operation)  Atmospheric pressure (Non-operation)  Fenuire range (Non-operation)  Atmospheric pressure (Non-operation)  Fenuire range (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Foo to 1060hPa  Environmental and energy  ROHS  Packaging  100% recyclable  Specific Substances	Power Supply	Built-in, 100-240V AC, 50/60Hz			
(WXHXD)  Product without stand (WXHXD)  Product with packaging (WXHXD)  Product with packaging (WXHXD)  Weight  Product with stand  Product without stand  Product with packaging  Operating Condition  Temperature range (operation)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  100% recyclable  Specific Substances	Dimensions				
Product without stand (WxHxD) Product with packaging (WxHxD)  Weight Product with stand Product with stand Product with packaging Product without stand Product without stand Product with packaging Product without stand Product with packaging Product with stand Product with sta	Product with stand	612 515 20 4			
Product with packaging (WxHxD)  Product with packaging (WxHxD)  Weight  Product with stand 9.43 kg  Product without stand 7.02 kg  Product with packaging 14.46 kg  Operating Condition  Temperature range 0°C to 35°C (HDR) 0°C to 40°C (SDR)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Environmental and energy  ROHS YES  Packaging 100% recyclable  Specific Substances  P.33 x 423 x 285 mm  735 x 423 x 285 mm  702 kg  Product with packaging  10.4 kg  Product with stand 9.43 kg  Product with s	(WxHxD)	613 X 515 X 204 mm			
Product with packaging (WXHXD)  Weight  Product with stand Product without stand Product with packaging Product without stand Product with packaging  O°C to 35°C (HDR) O°C to 40°C (SDR)  Relative humidity (operation)  Atmospheric pressure (operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy ROHS  YES  Packaging  100% recyclable  Specific Substances  100% PVC BFR free housing	Product without stand	612 - 260 - 60			
Weight Product with stand Product without stand Product with packaging  It 4.46 kg  Operating Condition  Temperature range (operation)  Relative humidity (operation) Product with stand Oncomposition  Product with stand Oncomposition  Product with stand Oncomposition  Product with stand Oncomposition  Product with stand Oncomposition Oncompositi	(WxHxD)	613 X 369 X 68 mm			
Weight Product with stand 9.43 kg Product without stand 7.02 kg Product with packaging 14.46 kg  Operating Condition Temperature range (operation) 0°C to 40°C (SDR) Relative humidity (operation) Atmospheric pressure (operation) Temperature range (Non-operation) Temperature range (Non-operation) Temperature range (Non-operation) Relative humidity (Non-operation) Relative humidity (Non-operation) Environmental and energy ROHS Packaging 100% recyclable Specific Substances  100% PVC BFR free housing	Product with packaging	725 v 422 v 205 mm			
Product with stand Product without stand Product with packaging Product with packaging Product with packaging Product with packaging  14.46 kg  Operating Condition Temperature range (operation) Relative humidity (operation) Atmospheric pressure (operation) Temperature range (Non-operation) Relative humidity (Non-operation) Relative humidity (Non-operation) Relative humidity (Non-operation) Atmospheric pressure (Non-operation) Atmospheric pressure (Non-operation) Atmospheric pressure (Non-operation) Atmospheric pressure (Non-operation) Province Management of the Ma	(WxHxD)	733 X 423 X 263 [[][[]			
Product without stand Product with packaging  14.46 kg  Operating Condition  Temperature range (operation)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Fenvironmental and energy  ROHS  Packaging  100% recyclable  Specific Substances	Weight				
Product with packaging 14.46 kg  Operating Condition  Temperature range 0°C to 35°C (HDR) (operation) 0°C to 40°C (SDR)  Relative humidity (operation) 20% to 80%  Atmospheric pressure (operation) 700 to 1060hPa  Temperature range (Non-operation) 20°C to 60°C  Relative humidity (Non-operation) 10% to 90%  Atmospheric pressure (Non-operation) 500 to 1060hPa  Environmental and energy ROHS YES  Packaging 100% recyclable  Specific Substances 100% PVC BFR free housing	Product with stand	9.43 kg			
Operating Condition  Temperature range (operation)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Finite of the DR of the	Product without stand	7.02 kg			
Temperature range (operation)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  100% recyclable  Specific Substances  100% PVC BFR free housing	Product with packaging	14.46 kg			
Temperature range (operation)  Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  100% recyclable  Specific Substances  100% PVC BFR free housing	Operating Condition				
(operation) 0°C to 40°C (SDR)   Relative humidity (operation) 20% to 80%   Atmospheric pressure (operation) 700 to 1060hPa   Temperature range (Non-operation) -20°C to 60°C   Relative humidity (Non-operation) 10% to 90%   Atmospheric pressure (Non-operation) 500 to 1060hPa   Environmental and energy YES   Packaging 100% recyclable   Specific Substances 100% PVC BFR free housing		0°C to 35°C (HDR)			
Relative humidity (operation)  Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  Specific Substances  20% to 80%  700 to 1060hPa  -20°C to 60°C  10% to 90%  500 to 1060hPa  500 to 1060hPa		0°C to 40°C (SDR)			
Atmospheric pressure (operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  100% recyclable  Specific Substances  700 to 1060hPa  -20°C to 60°C  500 to 90%  10% to 90%  500 to 1060hPa	Relative humidity	200/ 1 000/			
(operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  Specific Substances  700 to 1060nPa  10% to 90%  500 to 1060hPa  500 to 1060hPa	(operation)	20% to 80%			
(operation)  Temperature range (Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  Specific Substances  -20°C to 60°C  10% to 90%  500 to 1060hPa  500 to 1060hPa  100% recyclable	Atmospheric pressure	700 to 1000hDa			
(Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  10% to 90%  500 to 1060hPa  YES  Packaging  100% recyclable  Specific Substances  100% PVC BFR free housing	(operation)	700 to 100011Pa			
(Non-operation)  Relative humidity (Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  10% to 90%  500 to 1060hPa  YES  Packaging  100% recyclable  Specific Substances  100% PVC BFR free housing	Temperature range	-20°C to 60°C			
(Non-operation)  Atmospheric pressure (Non-operation)  Environmental and energy  ROHS  Packaging  10% to 90%  500 to 1060hPa  YES  Packaging  10% recyclable  Specific Substances  100% PVC BFR free housing	·	20 0 10 00 0			
Atmospheric pressure (Non-operation)  Environmental and energy ROHS Packaging 100% recyclable Specific Substances 100% PVC BFR free housing	,	10% to 90%			
(Non-operation)  Environmental and energy  ROHS  Packaging  100% recyclable  Specific Substances  100% PVC BFR free housing	1	10/0 to 50/0			
ROHS YES Packaging 100% recyclable Specific Substances 100% PVC BFR free housing		500 to 1060hPa			
ROHS YES Packaging 100% recyclable Specific Substances 100% PVC BFR free housing	(Non-operation)	300 to 1000111 ti			
Packaging 100% recyclable Specific Substances 100% PVC BFR free housing	Environmental and energy				
Specific Substances 100% PVC BFR free housing		1.20			
<u> </u>	Packaging	100% recyclable			
Cabinet	Specific Substances	100% PVC BFR free housing			
	Cabinet				
Color Black	Color	Black			
Finish Texture	Finish	Texture			

#### Note

- 1. This data is subject to change without notice. Go to www.philips.com/support to download the latest version of leaflet.
- 2. The version of HDMI and DP comply with the Compliance Test Specification (CTS).
- 3.SmartUniformity and Delta E information sheets are included in the box.

- 4.The function best effect need to warm up monitor in two hours based on local dimming off mode.
- 5. There is a fan inside of the monitor which will be automatically enabled when the monitor reach certain temperature. You may hear the sound from the operation of the fan which helps to cool down the temperature inside of the monitor.
- 6.NTSC Area based on CIE1976. AdobeRGB Coverage based on CIE1976. sRGB Area based on CIE1931.

#### 8.1 Resolution & Preset Modes

#### 1 Maximum Resolution 3840 x 2160 @ 60 Hz

## 2 Recommended Resolution 3840 x 2160 @ 60 Hz

H. freq (kHz)	Resolution	V. freq (Hz)
31.47	720x400	70.09
31.47	640x480	59.94
35.00	640x480	66.67
37.86	640x480	72.81
37.50	640x480	75.00
35.16	800x600	56.25
37.88	800x600	60.32
48.08	800x600	72.19
46.88	800x600	75.00
47.73	832x624	74.55
48.36	1024x768	60.00
56.48	1024x768	70.07
60.02	1024x768	75.03
44.77	1280x720	59.86
60.00	1280x960	60.00
63.89	1280x1024	60.02
79.98	1280x1024	75.03
55.94	1440x900	59.89
67.50	1920x1080	60.00
133.29	1920x2160 PBP mode (2 Win)	59.99
88.78	2560x1440	59.95
65.67	3840x2160	29.98
133.31	3840x2160	60.00

#### **3** Video Timing

Resolution	V. freq (Hz)
640x480P	59.94/60Hz 4:3
720x576P	50Hz 16:9
720x480P	59.94/60Hz 16:9
1280x720P	59.94/60Hz 16:9
1920x1080P	59.94/60Hz 16:9
3840x2160P	60Hz 16:9
3840x2160P	50Hz 16:9
3840x2160P	30Hz 16:9
3840x2160P	25Hz 16:9

#### Note

Please notice that your display works best at native resolution of 3840x2160. For best display quality, please follow this resolution recommendation.

#### 4 Video Bandwidth

Host	Video Cable	Resolution
	USB-C Gen1 Cable	
USB-C (Alt Mode DP1.2)	Thunderbolt <sup>™</sup> 3 Cable (40G)	3840x2160@60Hz
	Thunderbolt <sup>™</sup> 4 Cable (40G)	
LICE	USB-C Gen1 Cable	
USB-C (Alt Mode DP1.4)	Thunderbolt <sup>™</sup> 3 Cable (40G)	3840x2160@60Hz with HDR
(All Wode Di 1.4)	Thunderbolt <sup>™</sup> 4 Cable (40G)	
Thunderbolt <sup>™</sup> 3/	USB-C Gen1 Cable	
Thunderbolt <sup>™</sup> 4	Thunderbolt <sup>™</sup> 3 Cable (40G)	3840x2160@60Hz
(Alt Mode DP1.2)	Thunderbolt <sup>™</sup> 4 Cable (40G)	
Thunderbolt™ 3/	USB-C Gen1 Cable	
Thunderbolt <sup>™</sup> 4	Thunderbolt <sup>™</sup> 3 Cable (40G)	3840x2160@60Hz with HDR
(Alt Mode DP1.4)	Thunderbolt <sup>™</sup> 4 Cable (40G)	
HDMI 2.0	HDMI 2.0 cable	3840x2160@60Hz with HDR
DisplayPort	DP 1.2 cable	3840x2160@60Hz
DisplayPort	DP 1.4 cable	3840x2160@60Hz with HDR

#### 5 USB Bandwidth

Host	USB Upstream Cable	USB device connected to USB downstream	
USB-A (5Gbps)	A-C cable	Supported, USB 2.0/3.2 Gen1	
	USB-C Gen1/2 Cable		
USB-C (5Gbps Data Only)	Thunderbolt <sup>™</sup> 4 Cable (40G)	Supported, USB 2.0/3.2 Gen1	
	Thunderbolt <sup>™</sup> 3 Cable (40G)		
LICD CANADA	USB-C Gen1/2 Cable		
USB-C (Alt Mode DP1.2)	Thunderbolt <sup>™</sup> 4 Cable (40G)	Supported, USB 2.0 only	
D1 1.2)	Thunderbolt <sup>™</sup> 3 Cable (40G)		
	USB-C Gen1 Cable	Supported, USB 2.0/3.2 Gen1	
USB-C (Alt Mode DP1.4)	USB-C Gen2 Cable		
Main link: HBR3	Thunderbolt <sup>™</sup> 4 Cable (40G)	Supported, USB 2.0/3.2 Gen2	
	Thunderbolt <sup>™</sup> 3 Cable (40G)		
	USB-C Gen1 Cable		
USB-C (Alt Mode DP1.4)	USB-C Gen2 Cable	Supported, USB 2.0 only	
Main link: HBR2	Thunderbolt <sup>™</sup> 4 Cable (40G)	Supported, USB 2.0 Only	
	Thunderbolt <sup>™</sup> 3 Cable (40G)		
Thunderbolt <sup>™</sup> 4/	Thunderbolt <sup>™</sup> 4 Cable (40G)	C	
Thunderbolt™ 3	Thunderbolt <sup>™</sup> 3 Cable (40G)	Supported, USB 2.0/3.2 Gen2	

#### 9. Power Management

If you have VESA DPM compliance display card or software installed in your PC, the monitor can automatically reduce its power consumption when not in use. If an input from a keyboard, mouse or other input device is detected, the monitor will 'wake up' automatically. The following table shows the power consumption and signaling of this automatic power saving feature:

Power Management Definition									
VESA Mode	Video	H-sync	V-sync	Power Used	LED Color				
Active	ON	Yes	Yes	74.5 W (typ.) 322.2 W (max.)	White				
Sleep (Standby mode)	OFF	No	No	0.3 W (typ.)	White (blink)				
Off mode (AC switch)	OFF	-	-	0 W	OFF				

The following setup is used to measure power consumption on this monitor.

Native resolution: 3840 x 2160

Contrast: 50%Brightness: 70%

 Color temperature: 6500k with full white pattern

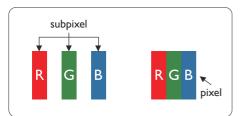


This data is subject to change without notice.

# 10. Customer care and warranty

## 10.1 Philips' Flat Panel Monitors Pixel Defect Policy

Philips strives to deliver the highest quality products. We use some of the industry's most advanced manufacturing processes and practice stringent quality control. However, pixel or sub pixel defects on the TFT Monitor panels used in flat panel monitors are sometimes unavoidable. No manufacturer can guarantee that all panels will be free from pixel defects, but Philips guarantees that any monitor with an unacceptable number of defects will be repaired or replaced under warranty. This notice explains the different types of pixel defects and defines acceptable defect levels for each type. In order to qualify for repair or replacement under warranty, the number of pixel defects on a TFT Monitor panel must exceed these acceptable levels. For example, no more than 0.0004% of the sub pixels on a monitor may be defective. Furthermore, Philips sets even higher quality standards for certain types or combinations of pixel defects that are more noticeable than others. This policy is valid worldwide



#### Pixels and Sub pixels

A pixel, or picture element, is composed of three sub pixels in the primary colors

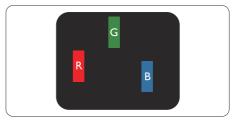
of red, green and blue. Many pixels together form an image. When all sub pixels of a pixel are lit, the three colored sub pixels together appear as a single white pixel. When all are dark, the three colored sub pixels together appear as a single black pixel. Other combinations of lit and dark sub pixels appear as single pixels of other colors.

#### Types of Pixel Defects

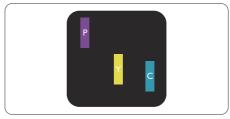
Pixel and sub pixel defects appear on the screen in different ways. There are two categories of pixel defects and several types of sub pixel defects within each category.

#### **Bright Dot Defects**

Bright dot defects appear as pixels or sub pixels that are always lit or 'on'. That is, a bright dot is a sub-pixel that stands out on the screen when the monitor displays a dark pattern. There are the types of bright dot defects.



One lit red, green or blue sub pixel.



#### Two adjacent lit sub pixels:

- Red + Blue = Purple
- Red + Green = Yellow
- Green + Blue = Cyan (Light Blue)



Three adjacent lit sub pixels (one white pixel).

#### Note

A red or blue bright dot must be more than 50 percent brighter than neighboring dots while a green bright dot is 30 percent brighter than neighboring dots.

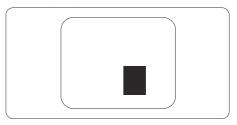
#### **Black Dot Defects**

Black dot defects appear as pixels or sub pixels that are always dark or 'off'. That is, a dark dot is a sub-pixel that stands out on the screen when the monitor displays a light pattern. These are the types of black dot defects.



#### **Proximity of Pixel Defects**

Because pixel and sub pixels defects of the same type that are near to one another may be more noticeable, Philips also specifies tolerances for the proximity of pixel defects.



#### Pixel Defect Tolerances

In order to qualify for repair or replacement due to pixel defects during the warranty period, a TFT Monitor panel in a Philips flat panel monitor must have pixel or sub pixel defects exceeding the tolerances listed in the following tables.

BRIGHT DOT DEFECTS	ACCEPTABLE LEVEL
1 lit subpixel	0
2 adjacent lit subpixels	0
3 adjacent lit subpixels (one white pixel)	0
Distance between two bright dot defects*	0
Total bright dot defects of all types	0
BLACK DOT DEFECTS	ACCEPTABLE LEVEL
1 dark subpixel	5 or fewer
2 adjacent dark subpixels	2 or fewer
2 a dia a sat da di su la sivala	
3 adjacent dark subpixels	0
Distance between two black dot defects*	0 ≥15mm
,	<u> </u>
Distance between two black dot defects*	≥ 15mm



♠ Note 1 or 2 adjacent sub pixel defects = 1 dot defect

#### 10.2 Customer Care & Warranty

For warranty coverage information and additional support requirements valid for your region, please visit www.philips.com/support website for details or contact your local Philips Customer Care Center.

For Warranty Period please refer to Warranty Statement in Important Information Manual.

For extended warranty, if you would like to extend your general warranty period, an Out of Warranty service package is offered via our Certified Service Center.

If you wish to make use of this service, please be sure to purchase the service within 30 calendar days of your original purchase date. During the extended warranty period, the service includes pickup, repair and return service, however the user will be responsible for all costs accrued.

If the Certified Service Partner cannot perform the required repairs under the offered extended warranty package, we will find alternative solutions for you, if possible, up to the extended warranty period you have purchased.

Please contact our Philips Customer Service Representative or local contact center (by Consumer care number) for more details.

•	Local Standard	•	Extended Warranty Period	•	Total Warranty Period
	Warranty Period		Period		
•	Depend on	•	+ 1 Year	•	Local Standard warranty period
	different Regions				+1
		•	+ 2 Years	•	Local Standard warranty period
					+2
		•	+ 3 Years	•	Local Standard warranty period
					+3

<sup>\*\*</sup>Proof of original purchase and extended warranty purchase required.



Please refer to important information manual for regional service hotline, which is available on the Philips website support page.

#### 11. Troubleshooting & **FAOs**

#### 11.1 Troubleshooting

This page deals with problems that can be corrected by a user. If the problem still persists after you have tried these solutions, contact Philips customer service representative.

#### 1 Common Problems

#### No Picture (Power LED not lit)

- Make sure the power cord is plugged into the power outlet and into the back of the monitor.
- First, ensure that the power button on the rear of the monitor is in the OFF position, then press it to the ON position.

#### No Picture (Power LED is White)

- Make sure the computer is turned
- · Make sure the signal cable is properly connected to your computer.
- Make sure the monitor cable has no bent pins on the connect side. If yes, repair or replace the cable.
- The Energy Saving feature may be activated

#### Screen says

Check cable connection

- Make sure the monitor cable is properly connected to your computer. (Also refer to the Quick Start Guide).
- Check to see if the monitor cable has bent pins.

Make sure the computer is turned on.

#### AUTO button doesn't function

The auto function is applicable only in VGA-Analog mode. If the result is not satisfactory, you can do manual adjustments via the OSD menu.



#### Note

The Auto Function is not applicable in DVI-Digital mode as it is not necessary.

#### Visible signs of smoke or sparks

- Do not perform any troubleshooting steps
- Disconnect the monitor from mains power source immediately for safety
- Contact with Philips customer service representative immediately.

#### 2 Imaging Problems

#### Image is not centered

- Adjust the image position using the "Auto" function in OSD Main Controls.
- Adjust the image position using the Phase/Clock of Setup in OSD Main Controls. It is valid only in VGA mode.

#### Image vibrates on the screen

Check that the signal cable is properly securely connected to the graphics board or PC.

#### Vertical flicker appears



- Adjust the image using the "Auto" function in OSD Main Controls.
- Eliminate the vertical bars using the Phase/Clock of Setup in OSD Main Controls. It is valid only in VGA mode.

#### Horizontal flicker appears



- Adjust the image using the "Auto" function in OSD Main Controls.
- Eliminate the vertical bars using the Phase/Clock of Setup in OSD Main Controls. It is valid only in VGA mode.

Image appears blurred, indistinct or too dark

 Adjust the contrast and brightness on On-Screen Display.

An "after-image", "burn-in" or "ghost image" remains after the power has been turned off.

- Uninterrupted display of still or static images over an extended period may cause "burn-in", also known as "after-imaging" or "ghost imaging", on your screen. "Burn-in", "after-imaging", or "ghost imaging" is a well-known phenomenon in LCD panel technology. In most cases, the "burn-in" or "afterimaging" or "ghost imaging" will disappear gradually over a period of time after the power has been switched off
- Always activate a moving screen saver program when you leave your monitor unattended.
- Always activate a periodic screen refresh application if your LCD monitor will display unchanging static content.
- Failure to activate a screen saver, or a periodic screen refresh application may result in severe "burn-in" or "after-imaging" or "ghost imaging" symptoms that will not disappear and cannot be repaired. The

damage mentioned above is not covered under your warranty.

Image appears distorted. Text is fuzzy or blurred.

 Set the PC's display resolution to the same mode as monitor's recommended screen native resolution.

Green, red, blue, dark, and white dots appears on the screen

- The remaining dots are normal characteristic of the liquid crystal used in today's technology, Please refer the pixel policy for more detail.
- \* The "power on" light is too strong and is disturbing
- You can adjust "power on" light using the power LED Setup in OSD main Controls.

For further assistance, refer to the Service contact information listed in Important information manual and contact Philips customer service representative.

\* Functionality different according to display.

#### 11.2 General FAQs

Q1: When I install my monitor what should I do if the screen shows 'Cannot display this video mode'?

Ans.: Recommended resolution for this monitor: 3840 x 2160.

- Unplug all cables, then connect your PC to the monitor that you used previously.
- In the Windows Start Menu, select Settings/Control Panel. In the Control Panel Window, select the Display icon. Inside the Display Control Panel, select the 'Settings'

- tab. Under the setting tab, in box labelled 'desktop area', move the sidebar to 3840 x 2160 pixels.
- Open 'Advanced Properties' and set the Refresh Rate to 60 Hz, then click OK
- Restart your computer and repeat step 2 and 3 to verify that your PC is set at 3840 x 2160.
- Shut down your computer, disconnect your old monitor and reconnect your Philips LCD monitor.
- Turn on your monitor and then turn on your PC.
- Q2: What is the recommended refresh rate for LCD monitor?
- Ans.: Recommended refresh rate in LCD monitors is 60 Hz, In case of any disturbance on screen, you can set it up to 75 Hz to see if that removes the disturbance.
- Q3: What are the .inf and .icm files? How do I install the drivers (.inf and .icm)?
- Ans.: These are the driver files for your monitor. Your computer may ask you for monitor drivers (.inf and .icm files) when you first install your monitor. Follow the instructions in your user manual, monitor drivers (.inf and .icm files) will be installed automatically.
- Q4: How do I adjust the resolution?
- Ans.: Your video card/graphic driver and monitor together determine the available resolutions. You can select the desired resolution under Windows® Control Panel with the "Display properties".

- Q5: What if I get lost when I am making monitor adjustments via OSD?
- Ans.: Simply press @/OK button, then select 'Setup' >'Reset' to recall all of the original factory settings.
- Q6: Is the LCD screen resistant to scratches?
- Ans.: In general it is recommended that the panel surface is not subjected to excessive shocks and is protected from sharp or blunt objects. When handling the monitor, make sure that there is no pressure or force applied to the panel surface side. This may affect your warranty conditions.
- Q7: How should I clean the LCD surface?
- Ans.: For normal cleaning, use a clean, soft cloth. For extensive cleaning, please use isopropyl alcohol. Do not use other solvents such as ethyl alcohol, ethanol, acetone, hexane, etc.
- Q8: Can I change the color setting of my monitor?
- Ans.: Yes, you can change your color setting through OSD control as the following procedures.
- Press OK to show the OSD (On Screen Display) menu
- Press ▼ to select the option "Color" then press OK to enter color setting, there are three settings as below.
  - 1. Color Temperature: The settings are Native, 5000K, 6500K, 7500K, 8200K, 9300K and 11500K. With settings in the 5000K range the panel appears "warm, with a red-white color tone". while a 11500K

- temperature yields "cool, bluewhite toning".
- sRGB: This is a standard setting for ensuring correct exchange of colors between different device (e.g. digital cameras, monitors, printers, scanners, etc).
- User Define: The user can choose his/her preference color setting by adjusting red, green, blue color.

#### Note

A measurement of the color of light radiated by an object while it is being heated. This measurement is expressed in terms of absolute scale, (degrees Kelvin). Lower Kevin temperatures such as 2004K are red; higher temperatures such as 9300K are blue. Neutral temperature is white, at 6504K.

Q9: Can I connect my LCD monitor to any PC, workstation or Mac?

Ans.: Yes. All Philips LCD monitors are fully compatible with standard PCs, Macs and workstations. You may need a cable adapter to connect the monitor to your Mac system. Please contact your Philips sales representative for more information.

Q10: Are Philips LCD monitors Plugand- Play?

Ans.: Yes, the monitors are Plug-and-Play compatible with Windows 10/8.1/8/7, Mac OSX.

Q11: What is Image Sticking, or Image Burn-in, or After Image, or Ghost Image in LCD panels?

Ans.: Uninterrupted display of still or static images over an extended period may cause "burn-in", also known as "after-imaging" or

"ghost imaging", on your screen. "Burn-in", "after-imaging", or "ghost imaging" is a well-known phenomenon in LCD panel technology. In most cases, the "burn-in" or "after-imaging" or "ghost imaging" will disappear gradually over a period of time after the power has been switched off. Always activate a moving screen saver program when you leave vour monitor unattended. Always activate a periodic screen refresh application if your LCD monitor will display unchanging

#### Warning

Failure to activate a screen saver, or a periodic screen refresh application may result in severe "burn-in" or "afterimage" or "ghost image" symptoms that will not disappear and cannot be repaired. The damage mentioned above is not covered under your warranty.

static content.

Q12: Why is my Display not showing sharp text, and is displaying jagged characters?

Ans.: Your LCD monitor works best at its native resolution of 3840 x 2160. For best display, please use this resolution.

Q13: How to unlock/lock my hot key?

Ans.: To lock the OSD, press and hold the /OK button while the monitor is off and then press button to turn the monitor on.

To un-lock the OSD, press and hold the /OK button while the monitor is off and then press button to turn the monitor on.

Monitor controls unlocked

#### Monitor controls locked

Q14: Where can I find Important

Information manual mentioned

in EDFU?

Ans.: Important Information manual

can be download on the Philips

website support page.



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