436M6

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PHILIPS

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1. Important

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

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 Display.

Operation

- Please Keep the Display 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 Display.
- Remove any object that could fall into ventilation holes or prevent proper cooling of the Display's electronics.
- Do not block the ventilation holes on the cabinet.
- When positioning the Display, make sure the power plug and outlet are easily accessible.
- If turning off the Display 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 at all time. If your power cord is missing, please contact your local service center. (Please refer to Customer Care Consumer Information Center)
- Do not subject the Display to severe vibration or high impact conditions during operation.
- Do not knock or drop the Display during operation or transportation.

Maintenance

- To protect your Display from possible damage, do not put excessive pressure on the LCD panel. When moving your Display, grasp the frame to lift; do not lift the Display by placing your hand or fingers on the LCD panel.
- Unplug the Display if you are not going to use it for an extensive period of time.
- Unplug the Display 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 Display.
- To avoid the risk of shock or permanent damage to the set, do not expose the Display to dust, rain, water, or excessive moisture environment.
- If your Display gets wet, wipe it with dry cloth as soon as possible.

- If foreign substance or water gets in your Display, 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 Display in locations exposed to heat, direct sunlight or extreme cold.
- In order to maintain the best performance of your Display and use it for a longer lifetime, please use the Display in a location that falls within the following temperature and humidity ranges.
  - Temperature: 0-40°C 32-104°F
  - Humidity: 20-80% RH

Important information for Burn-in/ Ghost image

- Always activate a moving screen saver program when you leave your Display unattended. Always activate a periodic screen refresh application if your Display 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 “burned 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 “after-image” 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 the chapter of “Consumer Information Center”)
- For transportation information, please refer to “Technical Specifications”.
- Do not leave your Display in a car/ trunk under direct sun light.

Note

Consult a service technician if the Display 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 Display 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 Display 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.

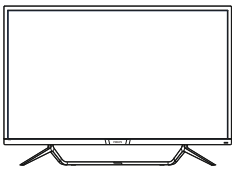
To learn more about our recycling program please visit :

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

2. Setting up the Display

2.1 Installation

1 Package contents



Batteries

Remote Control Unit

Power

* VGA

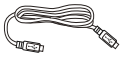
* CD

* DP

* HDMI

* Audio

* Mini DP



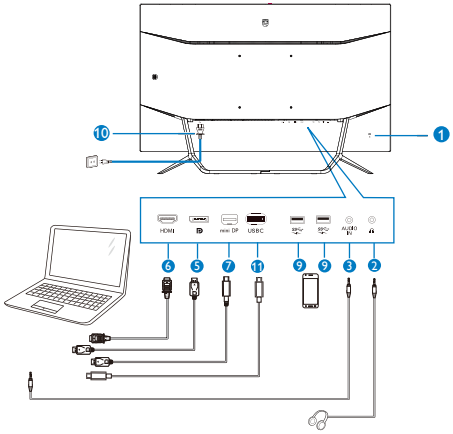
*USB C-C

*USB C-A

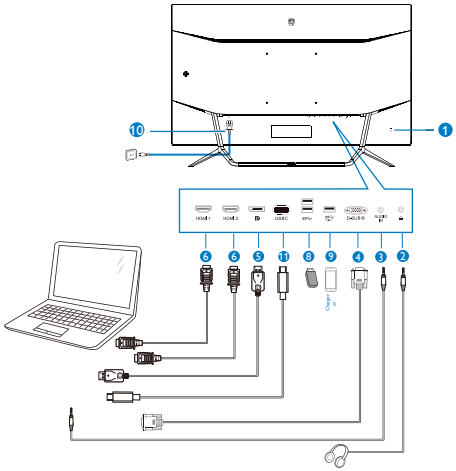
*Different according to region.

2 Connecting to your PC

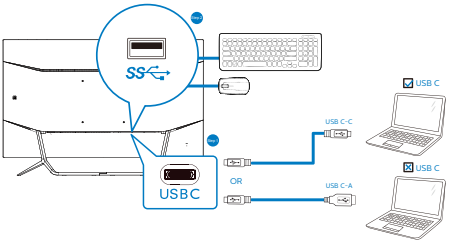
436M6VBPA



436M6VBRA



USB hub



1. Kensington anti-theft lock
2. Earphone jack
3. Audio input
4. VGA input
5. DP input
6. HDMI input
7. Mini DP input
8. USB downtream
9. USB charger
10. AC Power input
11. USB Type C input

Connect to PC

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

Note

USB 2.4Ghz wireless devices, such as, wireless mouse, keyboard, and headphones, maybe have interference by the high-speed signal of USB 3.0 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 USB3.0 connection port.
- Use a standard USB extension cable or USB hub to increase the space between your wireless receiver and the USB3.0 connection port.

USB hub

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

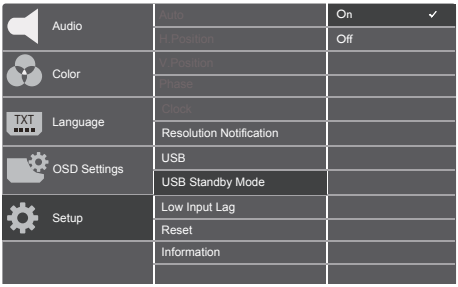
Connected USB devices will not work in this state.

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.

USB charging

This display has USB ports capable of standard power output including some with USB Charging function (identifiable with power icon). 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” 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 mode.



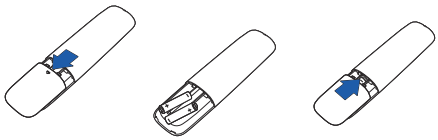
Note

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

3 The remote control is powered by two 1.5V AAA batteries.

To install or replace batteries:

1. Press and then slide the cover to open it.
2. Align the batteries according to the (+) and (–) indications inside the battery compartment.
3. Replace the cover.



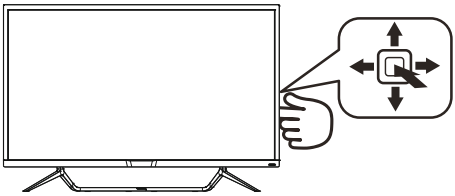
Note

The incorrect use of batteries can result in leaks or bursting. Be sure to follow these instructions:

- Place “AAA” batteries matching the (+) and (–) signs on each battery to the (+) and (–) signs of the battery compartment.
- Do not mix battery types.
- Do not combine new batteries with used ones. It causes shorter life or leakage of batteries.
- Remove the dead batteries immediately to prevent them from liquid leaking in the battery compartment. Don’t touch exposed battery acid, as it can damage your skin.
- If you do not intend to use the remote control for a long period, remove the batteries.

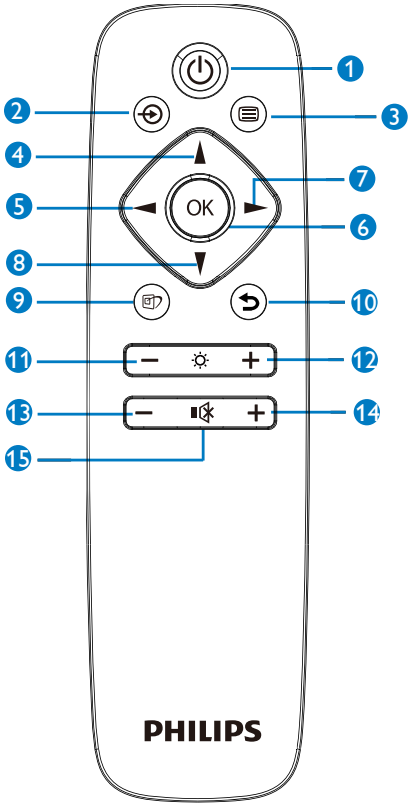
2.2 Operating the Display

1 Description of the control buttons



❶		Press to switch power on. Press more than 3 seconds to switch power off.
❷	→	Access the OSD menu. Confirm the OSD adjustment.
❸	↓	Adjust the speaker volume.
		Adjust the OSD menu.
❹	↑	Change the signal input source.
		Adjust the OSD menu.
❺	←	SmartImage. There are multiple selections: FPS, Racing, RTS, Gamer 1, Gamer 2, LowBlue Mode, SmartUniformity, and Off.
		Return to previous OSD level.

2 Description of the remote control buttons



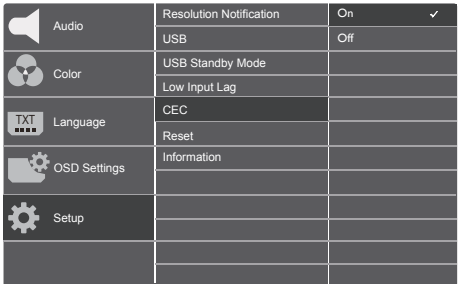
❶	⏻	Press to switch power on and off.
❷	⊕	Change the signal input source.
❸	☰	Access the OSD menu.
❹	▲	Adjust the OSD menu/ Turn up the values.
❺	◄	Return to previous OSD level.
❻	OK	Confirm the OSD adjustment.
❼	►	Access the OSD menu. Confirm the OSD adjustment.
❽	▼	Adjust the OSD menu / Turn down the values.
❾		SmartImage.There are multiple selections: FPS, Raching, FTS, Gamer l, Gamer 2, LowBlue Mode, SmartUniformity, and Off.
❿	↩	Return to previous OSD level
⓫	—	Turn down the brightness
⓬	+	Turn up the brightness
⓭	—	Turn down the volume
⓮	+	Turn up the volume
⓯	🔇	Mute

3 EasyLink (CEC)(436M6VBPA)

What is it?

HDMI is a single cable to carry both picture and audio signals from your devices to your monitor, saving you from cable clutter. It carries uncompressed signals, ensuring that you have the highest quality from source to screen. HDMI-connected monitors with Philips EasyLink (CEC) allow you to control functions of multiple connected devices with one remote control. Enjoy high quality picture and sound without clutter or fuss.

How to enable EasyLink (CEC)



1. Connect an HDMI-CEC compliant device through HDMI.
2. Configure the HDMI-CEC compliant device properly.
3. Switch on EasyLink(CEC) of this display by toggling to the right to enter OSD.
4. Select [Setup] > [CEC].
5. Select [On], and then confirm the selection.
6. Now, you can turn on or off both your device and this display using the same remote control.

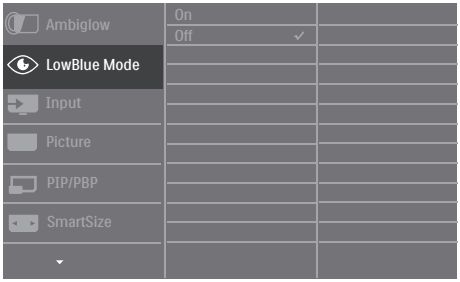
Note

1. The EasyLink-compliant device must be switched on and selected as the source.
2. Philips does not guarantee 100% interoperability with all HDMI CEC devices.

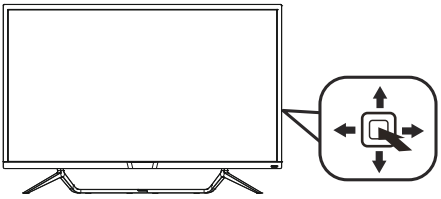
4 Description of the On Screen Display

What is On-Screen Display (OSD)?

On-Screen Display (OSD) is a feature in all Philips LCD Displays. It allows an end user to adjust screen performance or select functions of the Displays 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

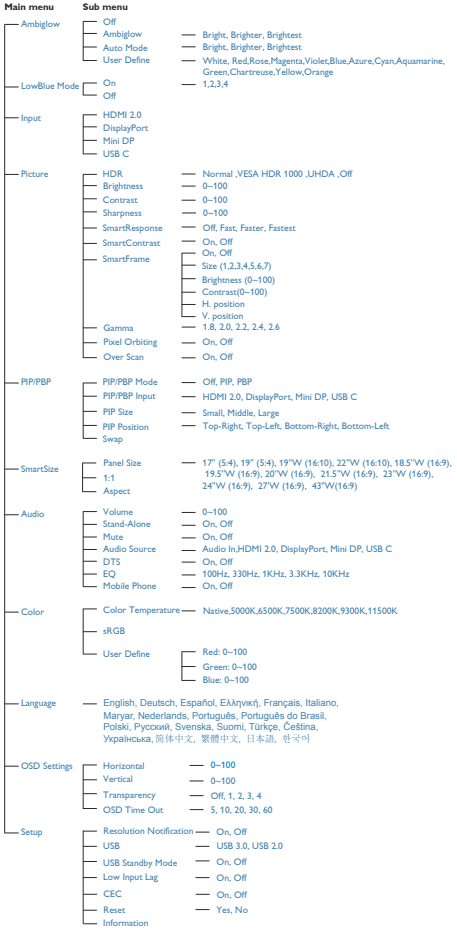


To access the OSD menu on this Philips Display simply use the single toggle button on the backside of the Display bezel. The single button operates like a joystick. To move the cursor, simply toggle the button in four directions. Press the button to select desired option.

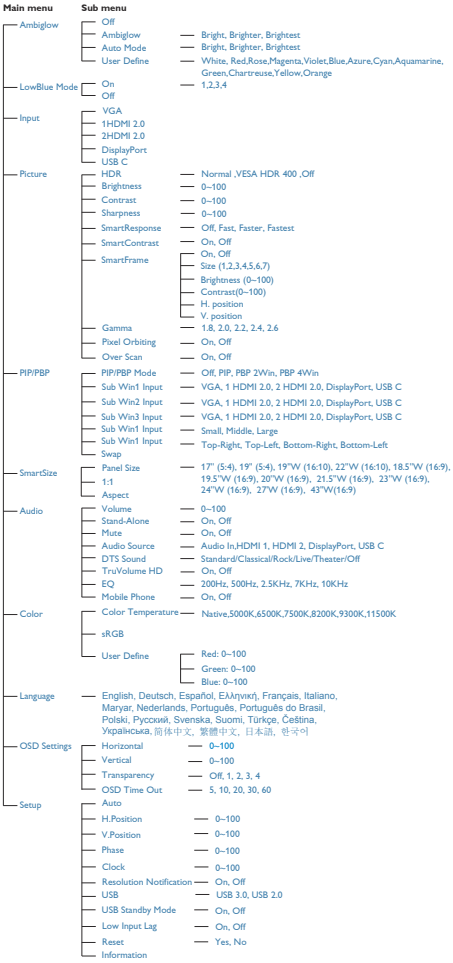
The OSD Menu

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.

436M6VBPA



436M6VBRA



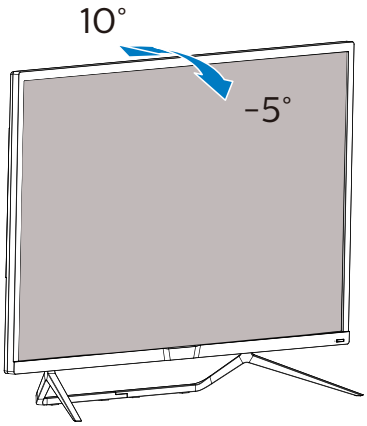
5 Resolution notification

This Display is designed for optimal performance at its native resolution, 3840 x 2160 @ 60 Hz. When the Display is powered on at a different resolution, an alert is displayed on screen: Use 3840 x 2160 @ 60 Hz for best results.

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

6 Physical Function

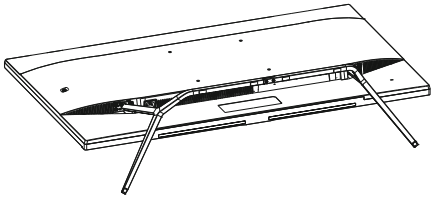
Tilt



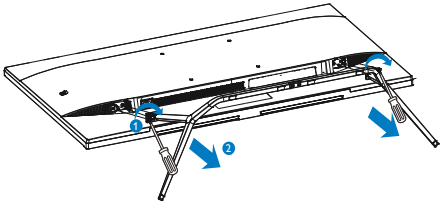
2.3 Remove the Base Assembly for VESA Mounting

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

1. Place the Display face down on a smooth surface. Pay attention not to scratch or damage the screen.

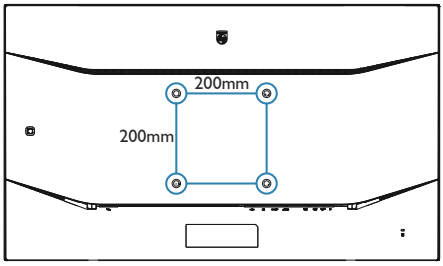


2. Loosen the assembly screws, then detach the bases from the Display.

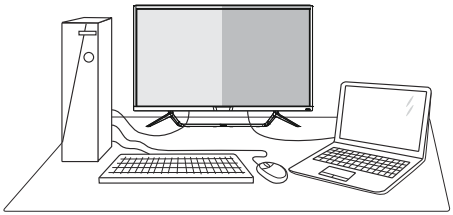


Note

This Display accepts a 200mm x 200mm VESA-Compliant mounting interface.



2.4 MultiView



1 What is it?

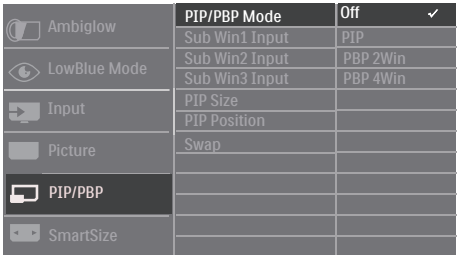
Multiview enables active variety connect and view so that you can work with multiple devices like PC and Notebook side-by-side simultaneously, making complex multi-tasking work a breeze.

2 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.

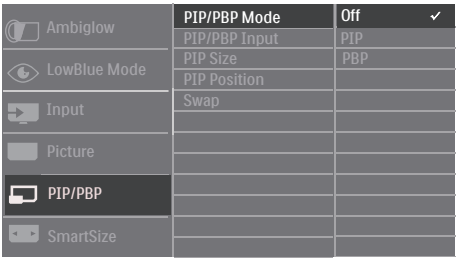
3 How to enable MultiView by OSD menu?

436M6VBRA



1. Toggle to the right to enter OSD Menu Screen.
2. Toggle to the up or down to select main menu [PIP / PBP], then toggle to the right to confirm.
3. Toggle to the up or down to select [PIP / PBP Mode], then toggle to the right.
4. Toggle to the up or down to select [PIP], [PBP 2Win] or [PBP 4Win], then toggle to the right to confirm your selection.
5. Now you can move backward to set the [Sub Win* Input], [PIP size], [PIP Position] or [Swap].
6. Toggle to the right to confirm your selection.

436M6VBPA

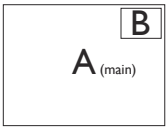
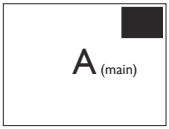


1. Toggle to the right to enter OSD Menu Screen.
2. Toggle to the up or down to select main menu [PIP / PBP], then toggle to the right to confirm.
3. Toggle to the up or down to select [PIP / PBP Mode], then toggle to the right.
4. Toggle to the up or down to select [PIP], [PBP], then toggle to the right to confirm your selection.
5. Now you can move backward to set the [PIP/PBP Input], [PIP size], [PIP Position] or [Swap].
6. Toggle to the right to confirm your selection.

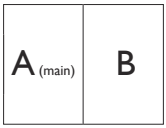
4 MultiView in OSD menu

- 436M6VBRA PIP / PBP Mode: There are 4 modes for MultiView: [Off], [PIP], [PBP 2Win], and [PBP 4Win]. 436M6VBPA PIP / PBP Mode: There are 3 modes for MultiView: [Off], [PIP], [PBP].

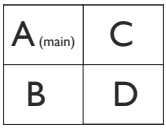
[PIP]: Picture in Picture

Open up a sub-window side-by-side of other signal source.	
When the sub source is not detected:	

[PBP 2Win] (436M6VBRA) / [PBP] (436M6VBPA): Picture by Picture

Open up a sub-window side-by-side of other signal sources.	
When the sub source is not detected.	

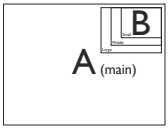
[PBP 4Win] (436M6VBRA): Picture by Picture

Open up three sub-windows of other signal sources.	
When the sub sources are not detected.	

Note

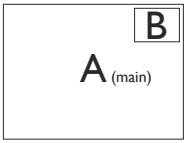
The black strip shows on the top and the bottom of the screen for the correct aspect ratio when in the PBP mode. If you expect to see full screen side by side, adjust your devices resolutions as pop up attention resolution, you will able to see 2 devices source screen project to this display side by side without black strips. Note the analog signal is not support this full screen in PBP mode.

- PIP Size: When PIP is activated, there are three sub-window sizes to choose: [Small], [Middle], [Large].

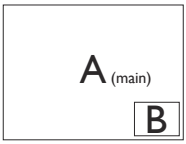


- PIP Position: When PIP is activated, there are four sub-window positions to choose.

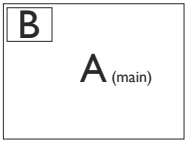
Top-Right



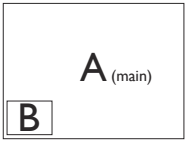
Bottom-Right



Top-Left

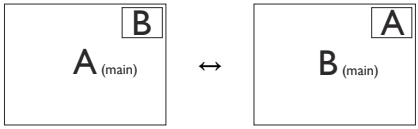


Bottom-Left

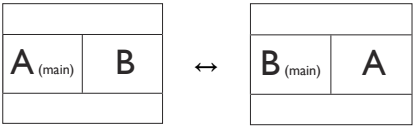


- Swap: The main picture source and the sub picture source swapped on the display.

Swap A and B source in [PIP] mode:



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, however your Philips Display can play the audio source independently under PIP / PBP mode, regardless of which video input. For example, you can play your MP3 player from the audio source connected to the [Audio In] port of this Display, and still watch your video source connected from [HDMI], [DisplayPort].

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 Display performance.

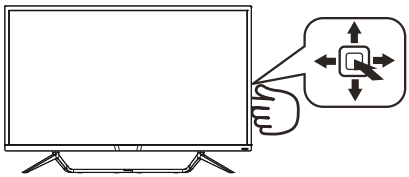
2 Why do I need it?

You want a Display 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 Display viewing experience.

3 How does it work?

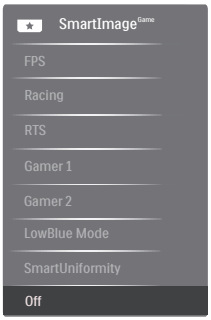
SmartImage is an exclusive, leading edge Philips technology that analyzes the content displayed on your screen. Based on a scenario you select, SmartImage dynamically enhances the contrast, color saturation and sharpness of images to enhance the contents being displayed - all in real time with the press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

4 How to enable SmartImage?



1. Toggle to the left to launch the SamrtImage on screen display.
2. Toggle to the up or down to select between FPS, Racing, RTS, Gamer 1, Gamer 2, LowBlue Mode, SmartUniformity and Off.
3. The SmartImage on screen display will remain on screen for 5 seconds or you can also toggle to the left to make confirmation.

There are 8 modes to select: FPS, Racing, RTS, Gamer 1, Gamer 2, LowBlue Mode, SmartUniformity and Off.



- **FPS:** For playing FPS (First Person Shooters) games. Improves dark theme black level details.
- **Racing:** For playing Racing games. Provides fastest response time and high color saturation.
- **RTS:** For playing RTS (Real Time Strategy) games, a user-selected portion can be highlighted for RTS games (through SmartFrame). The picture quality can be adjusted for the highlighted portion.
- **Gamer 1:** User's preference settings saved as Gamer 1.
- **Gamer 2:** User's preference settings saved as Gamer 2.
- **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 on different parts of a screen are a common phenomenon among LCD Displays. Typical uniformity is measured around 75-80%. By enabling Philips SmartUniformity feature, display uniformity is increased to above 95%. This produces more consistent and true images.
- **Off:** No optimization by SmartImage.

3.2 SmartContrast

1 What is it?

Unique technology that dynamically analyzes displayed content and automatically optimizes a Display'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.

2 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 Display's power consumption, you save on energy costs and extend the lifetime of your Display.

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.

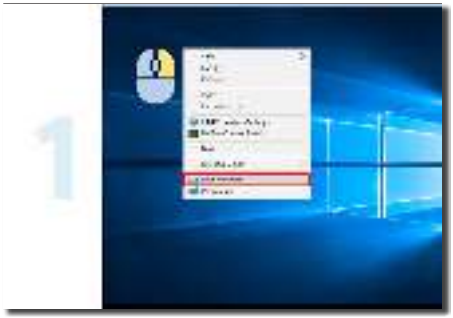
3.3 HDR

It is compatible with input signals in HDR10 format.

The display may automatically activate the HDR function if the player and content are compatible. Please contact the device manufacturer and the content provider for information on the compatibility of your device and content. Please select “OFF” for the HDR function when you have no need for automatical activation function.

Setting HDR in Windows 10

- Right click on the mouse, enter “Display settings”



- Set the display resolution to 3840 x 2160

- Turn on the HDR; meanwhile, your screen will slightly turn in dim

Note

1. Windows 10 V1709 (Fall creators update) or a later version is required.
2. FULL SCREEN is an essential setting when viewing HDR.

4. Technical Specifications

Picture/Display	
Display Panel Type	MVA
Backlight	W-LED
Panel Size	42.51" (108 cm)
Aspect Ratio	16:9
SmartContrast (typ.)	50,000,000:1
Response Time (typ.)	8 ms (GtG)
SmartResponse (typ.)	4 ms (GtG)
Optimum Resolution	VGA: 1920x1080@60Hz (436M6VBRA) HDMI/DisplayPort: 3840x2160@60Hz
Viewing Angle	178° (H) / 178° (V) @ C/R > 10
Picture Enhancement	SmartImage
Display Colors	1.07G
Vertical Refresh Rate	47-63Hz (VGA) 23-80Hz (HDMI/DisplayPort)
Horizontal Frequency	30-99KHz (VGA/HDMI) 30-160KHz (DisplayPort)
sRGB	YES
Color Gamut	YES
HDR	436M6VBRA: PC HDR400 certified 436M6VBPA: PC HDR1000 and UHDA certified
Connectivity	
Signal Input	436M6VBRA: HDMI 2.0x2, DisplayPort1.2x1, D-SUBx1 436M6VBPA: HDMI 2.0x1, DisplayPort1.2x1, MiniDisplayPort1.2x1
USB	436M6VBRA: USB type-Cx1 , USB3.0x3 (including 1 charging) 436M6VBPA: USB type-Cx1 , USB3.0x2 (including 2 charging)
Power Delivery	USB C(up to 5V/3A,15W)
Input Signal	436M6VBRA: Separate Sync, Sync on Green
Audio In/Out	PC audio-in & headphone with DTS
Convenience	
Built-in speaker	7Wx2 with DTS sound
MultiView	436M6VBRA: PIP(2xdevices), PBP(4xdevices) 436M6VBPA: PIP(2xdevices), PBP(2xdevices)
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

Picture/Display	
Other Convenience	VESA mount(200x200 mm), Kensington Lock, Adaptive Sync, Low input Lag, Low Blue Mode, Ambiglow
Plug & Play Compatibility	DDC/CI, sRGB, Windows 10/8.1/8/7, Mac OSX

436M6VBRA

Power			
Consumption	AC Input Voltage at 100VAC , 50Hz	AC Input Voltage at 115VAC , 60Hz	AC Input Voltage at 230VAC, 50Hz
Normal Operation	119.8 W (typ.)	120.0 W (typ.)	119.5 W (typ.)
Sleep (Standby)	<0.5 W (typ.)	<0.5 W (typ.)	<0.5 W (typ.)
Off	<0.3 W (typ.)	<0.3 W (typ.)	<0.3 W (typ.)
Heat Dissipation*	AC Input Voltage at 100VAC , 50Hz	AC Input Voltage at 115VAC , 60Hz	AC Input Voltage at 230VAC , 50Hz
Normal Operation	409.9 BTU/hr (typ.)	409.6 BTU/hr (typ.)	407.8 BTU/hr (typ.)
Sleep (Standby)	<1.71 BTU/hr (typ.)	<1.71 BTU/hr (typ.)	<1.71 BTU/hr (typ.)
Off	<1.02 BTU/hr (typ.)	<1.02 BTU/hr (typ.)	<1.02 BTU/hr (typ.)
Power LED indicator	On mode: White, Standby/Sleep mode: White (blinking)		
Power Supply	Built-in, 100-240VAC, 50-60Hz		

436M6VBPA

Power			
Consumption	AC Input Voltage at 100VAC , 50Hz	AC Input Voltage at 115VAC , 60Hz	AC Input Voltage at 230VAC, 50Hz
Normal Operation	161.9 W (typ.)	162.0 W (typ.)	162.1 W (typ.)
Sleep (Standby)	<0.5 W (typ.)	<0.5 W (typ.)	<0.5 W (typ.)
Off	<0.5 W (typ.)	<0.5 W (typ.)	<0.5 W (typ.)
Heat Dissipation*	AC Input Voltage at 100VAC , 50Hz	AC Input Voltage at 115VAC , 60Hz	AC Input Voltage at 230VAC , 50Hz
Normal Operation	552.6 BTU/hr (typ.)	552.9 BTU/hr (typ.)	553.2 BTU/hr (typ.)
Sleep (Standby)	<1.71 BTU/hr (typ.)	<1.71 BTU/hr (typ.)	<1.71 BTU/hr (typ.)
Off	<1.71 BTU/hr (typ.)	<1.71 BTU/hr (typ.)	<1.71 BTU/hr (typ.)
Power LED indicator	On mode: White, Standby/Sleep mode: White (blinking)		
Power Supply	Built-in, 100-240VAC, 50-60Hz		

Dimensions	
Product with stand (WxHxD)	976x661x264 mm
Product without stand (WxHxD)	976x574x63 mm
Product with packaging (WxHxD)	1090x764x338 mm
Weight	
Product with stand	436M6VBRA: 12.72 kg 436M6VBPA: 14.71 kg
Product without stand	436M6VBRA: 11.97 kg 436M6VBPA: 13.96 kg
Product with packaging	436M6VBRA: 18.84 kg 436M6VBPA: 20.72 kg

Operating Condition	
Temperature range (operation)	0°C to 40 °C
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	
ROHS	YES
Packaging	100% recyclable
Specific Substances	100% PVC BFR free housing
Compliance and standards	
Regulatory Approvals	CCC,CECP,WEEE,KCC,PSE,VCCI,J-MOSS,BSMI, RCM,CE,FCC Doc,EAC,ETL,TUV ISO9241-307,PSB, E-standby,SASO,CB,China RoHS, UKRAINIAN, Kuwait KUCAS,ICES-003
Cabinet	
Color	Black
Finish	Glossy and 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. Smart response time is the optimum value from either GtG or GtG (BW) tests.

4.1 Resolution & Preset Modes

1 Maximum Resolution
1920 x 1080 @ 60 Hz (analog input)
3840 x 2160 @ 60 Hz (digital input)

2 Recommended Resolution
3840 x 2160 @ 60 Hz (digital input)

H. freq (kHz)	Resolution	V. freq (Hz)
31.47	720 x 400	70.09
31.47	640 x 480	59.94
35.00	640 x 480	66.67
37.86	640 x 480	72.81
37.50	640 x 480	75.00
37.88	800 x 600	60.32
46.88	800 x 600	75.00
48.36	1024 x 768	60.00
60.02	1024 x 768	75.03
44.77	1280x 720	59.86
63.89	1280 x 1024	60.02
79.98	1280 x 1024	75.03
55.94	1440 x 900	59.89
70.64	1440 x 900	74.98
65.29	1680 x 1050	59.95
67.50	1920 x 1080	60.00
67.50	3840 x 2160	30.00
135.00	3840 x 2160	60.00
133.29	1920×2160 PBP mode	59.99

3 Video Timing

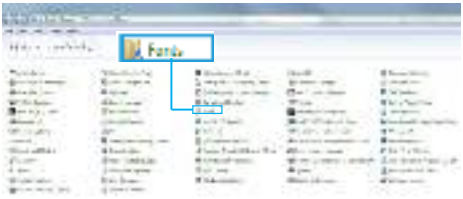
Resolution	V. freq (Hz)
640 x 480p	60Hz 4:3
720x 480p	60Hz 4:3
720 x 480p	60Hz 16:9
1280x 720p	60Hz
1920x 1080i	60Hz
1920x 1080p	60Hz
720 x 576p	50Hz 4:3
720 x 576p	50Hz 16:9
1280x 720p	50Hz
1920 x 1080i	50Hz
1920 x 1080p	50Hz
3840 x 2160P	50Hz
3840 x 2160P	60Hz

Note

1. Please notice that your display works best at native resolution of 3840 x 2160 @ 60Hz. For best display quality, please follow this resolution recommendation.
   Recommended resolution
   VGA: 1920 x 1080 @ 60Hz
   HDMI 2.0: 3840 x 2160 @ 60Hz
   DP v1.1: 3840 x 2160 @ 30Hz
   DP v1.2: 3840 x 2160 @ 60Hz

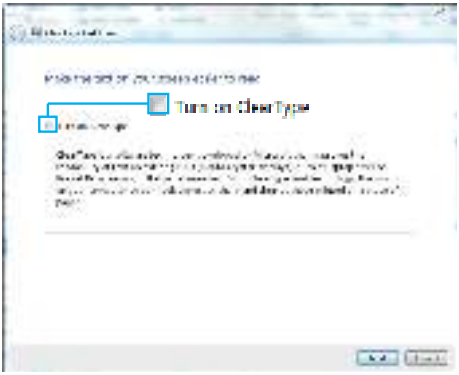
2. If you feel the texts in your display is a little fade away, you can adjust your fonts setting in your PC/Notebook as following steps.

Step 1: Control panel/All Control Panel Items/Fonts



Step 2: Adjust Clear Type Text

Step 3: Uncheck "Clear Type"



5. Power Management

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

436M6VBRA

Power Management Definition					
VESA Mode	Video	H-sync	V-sync	Power Used	LED Color
Active	ON	Yes	Yes	120 W (typ.) 180 W (max.)	White
Sleep (Standby)	OFF	No	No	0.5 W (typ.)	White (blink)

436M6VBPA

Power Management Definition					
VESA Mode	Video	H-sync	V-sync	Power Used	LED Color
Active	ON	Yes	Yes	162 W (typ.) 318 W (max.)	White
Sleep (Standby)	OFF	No	No	0.5 W (typ.)	White (blink)

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

- Native resolution: 3840 x 2160
- Contrast: 50%
- Brightness: 100%
- Color temperature: 6500k with full white pattern

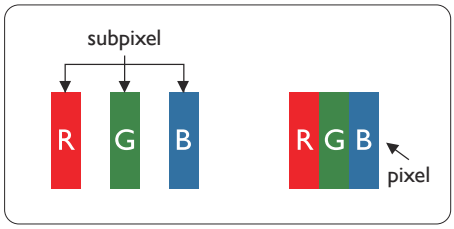
Note

This data is subject to change without notice.

6. Customer care and warranty

6.1 Philips' Flat Panel Displays 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 Display panels used in flat panel Displays are sometimes unavoidable. No manufacturer can guarantee that all panels will be free from pixel defects, but Philips guarantees that any Display 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 Display panel must exceed these acceptable levels. For example, no more than 0.0004% of the sub pixels on a Display 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

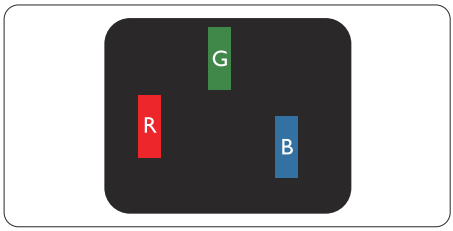
A pixel, or picture element, is composed of three sub pixels in the primary colors of red, green and blue. Many pixels together form an image. When all sub pixels of a pixel are lit, the three colored sub pixels together appear as a single white pixel. When all are dark, the three colored sub pixels 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

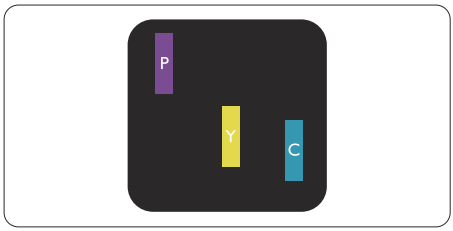
Pixel and sub pixel defects appear on the screen in different ways. There are two categories of pixel defects and several types of sub pixel defects within each category.

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 Display displays a dark pattern. There are the types of bright dot defects.

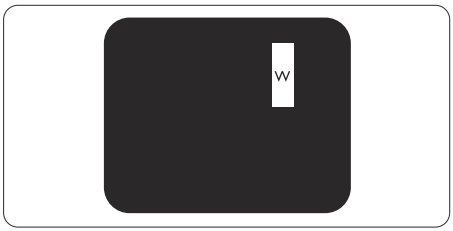


One lit red, green or blue sub pixel.



Two adjacent lit sub pixels:
- Red + Blue = Purple

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

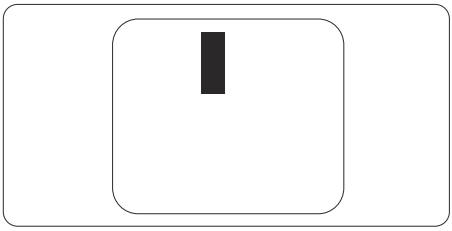


Three adjacent lit sub pixels (one white pixel).

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.

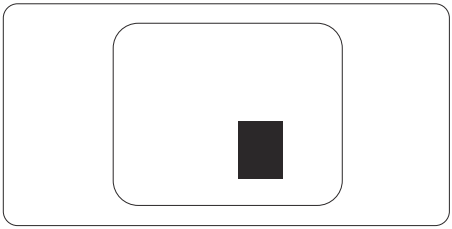
Black Dot Defects

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 Display 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 Display panel in a Philips flat panel Display must have pixel or sub pixel defects exceeding the tolerances listed in the following tables.

BRIGHT DOT DEFECTS	ACCEPTABLE LEVEL
1 lit subpixel	2
2 adjacent lit subpixels	0
3 adjacent lit subpixels (one white pixel)	0
Total bright dot defects of all types	10

BLACK DOT DEFECTS	ACCEPTABLE LEVEL
1 dark subpixel	8 or fewer
2 adjacent dark subpixels	2 or fewer
3 adjacent dark subpixels	0
Distance between two black dot defects*	>=20mm
Total black dot defects of all types	10 or fewer

TOTAL DOT DEFECTS	ACCEPTABLE LEVEL
Total bright or black dot defects of all types	12 or fewer

Note

1. 1 or 2 adjacent sub pixel defects = 1 dot defect
2. This Display is ISO9241-307 compliant(ISO9241-307: Ergonomic requirement , analysis and compliance test methods for electronic visual displays)
3. ISO9241-307 is the successor of formerly known ISO13406 standard, which is withdrawn by the International Organisation for Standardisation (ISO) per: 2008-11-13.

6.2 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 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.

Philips Customer Care Center number listed below.

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

**Proof of original purchase and extended warranty purchase required.

Note
Please refer to Important Information manual for regional service hotline, which is available on the Philips website support page.

7. Troubleshooting & FAQs

7.1 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

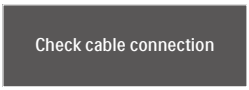
No Picture (Power LED not lit)

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

No Picture (Power LED is White)

- Make sure the computer is turned on.
- Make sure the signal cable is properly connected to your computer.
- Make sure the Display 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



- Make sure the Display cable is properly connected to your computer. (Also refer to the Quick Start Guide).
- Check to see if the Display 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 Display 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 "burned 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 your Display unattended.
- Always activate a periodic screen refresh application if your LCD Display 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-image” or “ghost image” 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 Display’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 Consumer Information Centers list and contact Philips customer service representative.

7.2 General FAQs

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

Ans.: Recommended resolution for this Display: 3840 x 2160 @ 60 Hz.

- Unplug all cables, then connect your PC to the Display 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 @ 60 Hz.
- Shut down your computer, disconnect your old Display and reconnect your Philips LCD Display.
- Turn on your Display and then turn on your PC.

Q2: What is the recommended refresh rate for LCD Display?

Ans.: Recommended refresh rate in LCD Displays 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 on the user manual? How do I install the drivers (.inf and .icm)?

Ans.: These are the driver files for your Display. Follow the instructions in your user manual to install the drivers. Your computer may ask you for Display drivers (.inf and .icm files) or a driver disk when you first install your Display.

Q4: How do I adjust the resolution?

Ans.: Your video card/graphic driver and Display 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 Display adjustments via OSD?

Ans.: Simply press the OK button, then select '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 Display, 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 Display?

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 "Down Arrow" to select the option "Color" then press "OK" to enter color setting, there are three settings as below.
  1. Color Temperature: The 7 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".
  2. sRGB: This is a standard setting for ensuring correct exchange of colors between different device (e.g. digital cameras, Displays, printers, scanners, etc).
  3. 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 Display to any PC, workstation or Mac?

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

Q10: Are Philips LCD Displays Plug-and- Play?

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

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 "burned in" or "atter-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 your Display unattended.
Always activate a periodic screen refresh application if your LCD Display will display unchanging static content.

Warning

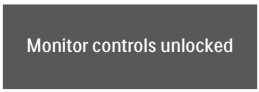
Failure to activate a screen saver, or a periodic screen refresh application may result in severe “burn-in” or “after-image” or “ghost image” symptoms that will not disappear and cannot be repaired. The damage mentioned above is not covered under your warranty.

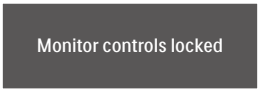
Q12: Why is my Display not showing sharp text, and is displaying jagged characters?

Ans.: Your LCD Display works best at its native resolution of 3840 x 2160 @ 60 Hz. For best display, please use this resolution.

Q13: How to unlock/lock my hot key?

Ans.: Please press ☰/OK for 10 seconds to unlock/lock the hot key, by doing so, your Display pops out “Attention” to show the unlock/lock status as shown below illustrators.





Q14: Why the fonts are indisctinct?

Ans.: please follow the process on page 23 to improve it.

Q15: When I project from my notebook through “USB type C” connector to this display, I cannot see anything on the display?

Ans.: The USB C port of this display is capable of receiving and transferring power, data and video. Please ensure that your notebook/device USB type C connector supports Data transmission and supports DP ALT mode for video output. Please check if you have to enable the functions via your Notebook bios or other software combinations to enable the transmission/reception.

Q16: Why is this monitor not charging my notebook from the USB type C port?

Ans.: The USB C port of this display is capable of giving power output to charge notebooks/device. However, not all notebooks or devices are capable of being charged from USB type C port. Please check if your notebook/device is capable of power charging function. You may have a USB type C port, but it may be limited to only data transmission function. If your notebook/device supports charging function through USB type C port, please make sure that this function is enabled from your system’s bios or other software combination, if required. It is possible that the commercial policy of your notebook/device may require you to purchase their own brand specific power accessories. In that case, it may not recognize and block the Philips USB type C power charging function. This is not a fault of the Philips display. Please refer to the detailed operation manual of your notebook or device and contact them.

7.3 Multiview FAQs

Q1: Can I enlarge the PIP sub window?

Ans.: Yes, there are 3 sizes to select: [Small], [Middle], [Large]. You can press ☰ to enter OSD menu. Select your preferred [PIP Size] option from the [PIP / PBP] main menu.

Q2: How to listen to Audio, independent of video?

Ans.: Normally the audio source is linked to the main picture source. If you want to change audio-source input (for example: listen to your MP3 player independently regardless of the video source input), you can press ☰ to enter OSD menu. Select your preferred [Audio Source] option from the [Audio] main menu.

Please note that the next time you turn on your Display, the Display will by default select the audio source you chose last time. In case you want to change it again, you need to go through the above steps to select your new preferred audio source, which then will become the “default” mode.

Q3: Why the sub-windows flickers when I enable PIP/PBP.

Ans: It’s because the sub-windows video source is interlace timing(i-timing), please change sub-window signal source to be progressive timing(P-timing).

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