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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.

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.
• 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 Customer Care Consumer Information Center)
• Do not subject the monitor to severe vibration or high impact conditions during operation.
• Do not knock or drop the monitor during operation or transportation.

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.
• 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.
1. Important

- 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 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 “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 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/sites/philipsglobal/about/sustainability/ourenvironment/ourrecyclingprogram.page
2. Setting up the monitor

2.1 Installation

1 Package contents

- Monitor
- Quick Start Guide
- Audio cable
- AC/DC Adapter
- DVI cable
- DP cable
- VGA cable

*Depends on the country

Note
Use only the AC/DC adapter model: Philips ADPC20120

2 Install the base

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

2. Hold the stand with both hands.
   (1) Gently attach the stand to the VESA mount area until the latch locks the stand.
   (2) Gently attach the base to the stand.
   (3) Use your fingers to tighten the screw located at the bottom of the base, and secure the base to the stand tightly.

Warnings
2. Setting up the monitor

Connecting to your PC

1. Kensington anti-theft lock
2. DVI input
3. MHL-HDMI input
4. Display port input
5. VGA input
6. Audio input
7. Earphone jack
8. AC/DC power input
9. USB upstream
10. USB downstream
11. USB fast charger

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.
3. Connect the monitor signal cable to the video connector on the back of your computer.
4. Plug the power cord of your computer and your monitor into a nearby outlet.
5. Turn on your computer and monitor. If the monitor 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.
2. Setting up the monitor

2.2 Operating the monitor

1. **Description of the control buttons**

   - **1. Power**
     - Switch monitor’s power ON or OFF.
   - **2. Menu/OK**
     - Access the OSD menu. Confirm the OSD adjustment.
   - **▲▼**
     - Adjust the OSD menu.
   - **User**
     - User preference key. Customize your own preference function from OSD to become the “user key”.
   - **MULTI MENU**
     - PIP/PbP/Off/Swap
   - **6. ▼**
     - Return to previous OSD level.
   - **7. ●**
     - SmartImage hot key. There are 7 modes to select: Office, Photo, Movie, Game, Economy, SmartUniformity, Off.
   - **8. ♦**
     - Webcam activity light
   - **9. 2.0 Megapixel Webcam
   - **10. Microphone
   - **11. LightSensor
   - **12. PowerSensor

2. **Customize your own “USER” key**

   This hot key allows you to setup your favorite function key.

   1. Press **-enter button** on the front bezel to enter OSD Menu Screen.
   2. Press ▲ or ▼ button to select main menu [OSD Settings], then press OK button.
   3. Press ▲ or ▼ button to select [User key], then press OK button.
   4. Press ▲ or ▼ button to select your preferred function: [Audio Source], [Volume], or [Input].
   5. Press OK button to confirm your selection.

Now you can press the hotkey directly on the front bezel. Only your pre-selected function will appear for quick access.
2. Setting up the monitor

For example, if you selected [Audio Source] as the hotkey, press the User button on the front bezel, the [Audio Source] menu appears.

3. Independent audio playback, regardless of video input

Your Philips monitor can play the audio source independently, 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 monitor, and still watch your video source connected from [MHL-HDMI], or [DisplayPort].

1. Press button on the front bezel to enter OSD Menu Screen.

2. Press ▲ or ▼ button to select main menu [Audio], then press OK button.

3. Press ▲ or ▼ button to select [Audio Source], then press OK button.

4. Press ▲ or ▼ button to select your preferred audio source: [DisplayPort], [MHL-HDMI], or [Audio In].

5. Press OK button to confirm your selection.

Note

- The next time you turn on this monitor, it will by default select the audio source you previously selected.
- In case you want to change it, you will have to go through the selection steps again to select your new preferred audio source as the default.

4 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 front bezel 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.

<table>
<thead>
<tr>
<th>Main menu</th>
<th>Sub menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>PowerSensor</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>LightSensor</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>Input</td>
<td>VGA</td>
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<tr>
<td></td>
<td>DVI</td>
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<tr>
<td></td>
<td>MHL-HDMI</td>
</tr>
<tr>
<td>Picture</td>
<td>Picture Format</td>
</tr>
<tr>
<td></td>
<td>Brightness</td>
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<td></td>
<td>Contrast</td>
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<td></td>
<td>Sharpness</td>
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<td></td>
<td>SmartResponse</td>
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<td></td>
<td>SmartContrast</td>
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<td></td>
<td>Gamma</td>
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<td></td>
<td>Pixel Orting</td>
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<td></td>
<td>Over Scan</td>
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<tr>
<td>PIP/PbP</td>
<td>PIP/PbP Mode</td>
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<tr>
<td></td>
<td>PIP/PbP Input</td>
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<tr>
<td>Audio</td>
<td>Volume</td>
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<td></td>
<td>Stand-Alone</td>
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<td></td>
<td>Mute</td>
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<td>Color</td>
<td>Color Temperature</td>
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<td></td>
<td>uRGB</td>
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<td></td>
<td>User Define</td>
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<tr>
<td>Language</td>
<td>English</td>
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<td></td>
<td>Deutsch</td>
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<td>Español</td>
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<td>Ελληνική</td>
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<td>Maryar</td>
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<td>Nederlands</td>
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<td>Português</td>
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<td>Português do Brazil</td>
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<td>Suomi</td>
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<td>Türkçe</td>
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<td>Čeština</td>
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<td></td>
<td>Українська</td>
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<td></td>
<td>简体中文</td>
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<td></td>
<td>繁體中文</td>
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<td></td>
<td>日本語</td>
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<tr>
<td></td>
<td>한국어</td>
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<tr>
<td>Setup</td>
<td>Auto</td>
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<td></td>
<td>Power LED</td>
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<td></td>
<td>M. Position</td>
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<td></td>
<td>V. Position</td>
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<td></td>
<td>Phase</td>
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<td></td>
<td>Clock</td>
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<tr>
<td></td>
<td>OSD Time Out</td>
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<tr>
<td></td>
<td>User Key</td>
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<tr>
<td></td>
<td>Information</td>
</tr>
</tbody>
</table>

Resolution notification

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

Physical Function

Tilt

Swivel
2. Setting up the monitor

Height adjustment

Pivot

2.3 MultiView

1 What is it?
Multiview enables active dual 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 hotkey?
1. Press the hotkey MULTIVIEW directly on the front bezel.
2. Setting up the monitor

2. The MultiView selection menu appears. Press ▲ or ▼ button to select.

3. Press OK button to confirm your selection and then exit automatically.

4. How to enable MultiView by OSD menu?

Besides pressing the hotkey MULTIVIEW directly on the front bezel, the MultiView function can also be selected in OSD menu.

1. Press button on the front bezel to enter OSD Menu Screen.

- Press ▲ or ▼ button to select main menu [PiP / PbP], then press OK button.
- Press ▲ or ▼ button to select [PiP / PbP Mode], then press OK button.
- Press ▲ or ▼ button to select [PiP] or [PbP].
- Now you can move backward to set the [PiP / PbP Input], [PiP Size], [PiP Position], or [Swap].

2. Press OK button to confirm your selection.

MultiView in OSD menu

- PiP / PbP Mode: There are two modes for MultiView: [PiP] and [PbP].

[PiP]: Picture in Picture

Open up a sub-window of another signal source.

When the sub source is not detected:

[PbP]: Picture by Picture

Open up a sub-window side-by-side of another signal source.

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.

- PiP / PbP Input: There are four different video input to choose as the sub display source: [VGA], [DVI], [MHL-HDMI], and [DisplayPort].

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

<table>
<thead>
<tr>
<th>MAIN SOURCE (xl)</th>
<th>Inputs</th>
<th>VGA</th>
<th>DP</th>
<th>DVI</th>
<th>MHL-HDMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>MultiView</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VGA</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>DP</td>
<td>●</td>
<td>●</td>
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<tr>
<td>DVI</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>MHL-HDMI</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
2. Setting up the monitor

• 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.

• 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. (Refer to page 7 “Independent audio playback, regardless of video input” for more detail.)
2. Setting up the monitor

2.4 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.

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

3. 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.
2.5 MHL (Mobile High-Definition Link) introduction

1 What is it?
Mobile High Definition Link (MHL) is a mobile audio/video interface for directly connecting mobile phones and other portable devices to high-definition displays.

An optional MHL cable allows you to simply connect your MHL capable mobile device to this large Philips MHL display, and watch your HD videos come to life with full digital sound. Now not only you can enjoy your mobile games, photos, movies, or other apps on its big screen, you can simultaneously charge your mobile device so you never run out of power half way.

2 How do I use the MHL function?
To use the MHL function, you need an MHL-Certified mobile device. To find a list of MHL-certified devices, visit the official MHL website (http://www.mhlconsortium.org).

You also need a optional MHL certified special cable in order to use this function.

3 How does it work? (how do I connect?)
Connect the Optional MHL cable to the mini USB port on the mobile device side, and the [MHL-HDMI] marked port on the monitor side. You are now ready to view the images on your big screen display and operate all function on you the mobile device such as internet surfing, game playing, photo browsing…etc. If your monitor has speaker function, then you will be able to hear accompanying sound too. When the MHL cable is disconnected or the mobile device is turned off, the MHL function will be automatically disabled.

Note
- The port marked [MHL-HDMI] is the only port on the monitor that supports the MHL function when the MHL cable is used. Note that the MHL certified cable is different than a standard HDMI cable.
- A mobile device with MHL certification must be purchased separately.
- You may have to manually switch the monitor to MHL-HDMI mode in order to activate the monitor, if you have other devices already working and connected to available inputs.
- Standby/Off energy saving of ErP is not applicable for the MHL charging functionality.
- This Philips display is MHL certified. However, in case your MHL device does not connect or work correctly, check with your MHL device FAQ or vendor directly for direction. The policy of your device manufacturer may require you to purchase their brand specific MHL cable or adapter in order to work with other brand MHL devices. Note that this is not a fault of this Philips display.
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 \( \text{SmartImage} \) to launch the SmartImage on screen display.

2. Keep pressing \( \downarrow \uparrow \) to toggle among Office, Photo, Movie, Game, Economy, SmartUniformity and Off.

3. The SmartImage on screen display will remain on screen for 5 seconds, or you can also press "OK" to make confirmation.

There are seven modes to select: Office, Photo, Movie, Game, Economy, SmartUniformity and Off.

- **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.

- **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 increased to above 95%. This produces more consistent and true images.

- **Off**: No optimization by SmartImage.

### 3.2 SmartContrast

#### 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.

#### 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.
4. **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 up to 80%.

#### User present in front

![User present in front](image1)

#### User not present

![User not present](image2)

*Power consumption as illustrated above is for reference purpose only.*

### 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.

### How to adjust settings

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

- Enter OSD Menu Screen and press ▲ or ▼ button to select [PowerSensor], then press OK button.
- Turn the PowerSensor on.
- Select 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 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.

### 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.
5. LightSensor

1. **What is it?**

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

2. **How to enable LightSensor?**

![LightSensor menu]

1. Press \( \text{button on the front bezel to enter OSD menu screen.} \)
2. Press \( ^{\uparrow} \) or \( ^{\downarrow} \) button to select main menu [LightSensor], then press button OK .
3. Press \( ^{\uparrow} \) or \( ^{\downarrow} \) button to turn on or off the LightSensor.
6. Built-in Webcam with Microphone

Note
USB connection between the monitor and PC is required for the webcam to operate.

The webcam allows you to hold interactive video and audio conference calls over the internet. It provides the most convenient and easiest way for Business persons to communicate with other colleagues around the world, saving a lot time and money. Depending on the software used, it also allows you to take photos, share files or use microphone only without enabling webcam. The microphone and activity light are on the side of the webcam on the bezel of the display.

6.1 PC system requirements

- Operating system: Microsoft Windows 7, Microsoft Windows Vista, Microsoft Windows XP (SP2), and any other OS whichever support UVC/UAC (USB Video Class compliant / Audio Class compliant) under USB 2.0 standard
- Processor: 1.6GHz or above
- RAM: 512MB (for XP) / 1GB(for Vista and Windows 7)
- Hard disk space: minimum 200MB
- USB: USB 2.0 or above, UVC/UAC support

6.2 Using the device

Philips monitor with webcam device transmits video and sound data through USB port. It can be enabled by simply connecting your USB cable from your PC to the USB upstream of USB hub on the side IO of monitor.

- Connect your USB cable to upstream of USB hub on the side IO of monitor from PC side.
- Turn on your PC and make sure your internet connection is working properly.
- Download and enable free online chatting software such as Skype, Internet Messenger, or equivalent. You can also subscribe to dedicated software in case of more sophisticated usage like multi conferencing, etc.
- The webcam is ready to be used for chat or make the phone call through internet service.
- Make the call by following the instruction of the software program.

Note
To set up a video call, you must have a reliable Internet connection, an ISP and software like Internet messenger or video phone call program. Make sure the person that you are calling has compatible video-calling software. The video and audio performance quality depends on the bandwidth available on both ends. The person you are calling must have similar capability of devices and software.
## 7. Technical Specifications

<table>
<thead>
<tr>
<th>Picture/Display</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Panel Type</td>
<td>AH-IPS LCD</td>
</tr>
<tr>
<td>Backlight</td>
<td>LED</td>
</tr>
<tr>
<td>Panel Size</td>
<td>23.8&quot; W (60.5 cm)</td>
</tr>
<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
</tr>
<tr>
<td>Pixel Pitch</td>
<td>0.137(H) mm × 0.137(V) mm</td>
</tr>
<tr>
<td>Smart Contrast</td>
<td>50,000,000:1</td>
</tr>
<tr>
<td>Response Time (typ.)</td>
<td>14 ms</td>
</tr>
<tr>
<td>SmartResponse Time (typ.)</td>
<td>5 ms(GtG)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optimum Resolution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP: 3840x2160 @ 60Hz, 3840x2160 @ 30Hz</td>
<td></td>
</tr>
<tr>
<td>DVI: 3840x2160 @ 30Hz, 2560x1440 @ 60Hz</td>
<td></td>
</tr>
<tr>
<td>VGA: 1920x1080 @ 60Hz</td>
<td></td>
</tr>
<tr>
<td>HDMI 2.0: 3840x2160 @ 60Hz, 3840x2160 @ 30Hz</td>
<td></td>
</tr>
</tbody>
</table>

| Viewing Angle (typ.)                | 178° (H) / 178° (V) @ C/R > 10 |
| Display Colors                      | 1.07 Billion colors, 10Bit (8Bit + A-FRC) |
| Vertical Refresh Rate               | 56-80Hz (VGA) |
|                                    | 23-80Hz (DVI/HDMI 2.0/DisplayPort) |

<table>
<thead>
<tr>
<th>Horizontal Frequency</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-99KHz (VGA/DVI)</td>
<td></td>
</tr>
<tr>
<td>30-140KHz (HDMI 2.0)</td>
<td></td>
</tr>
<tr>
<td>30-160KHz (DisplayPort)</td>
<td></td>
</tr>
</tbody>
</table>

| MHL                                 | 1080P @ 60Hz |
| sRGB                                | YES |
| Brightness uniformity              | 93%-105% |
| Delta E                             | <3 |

<table>
<thead>
<tr>
<th>Connectivity</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Input</td>
<td>DVI(Digital), VGA (Analogue), DisplayPort, MHL-HDMI</td>
</tr>
<tr>
<td>USB</td>
<td>USB 3.0×3 includes 1 fast charger</td>
</tr>
<tr>
<td>Input Signal</td>
<td>Separate Sync, Sync on Green</td>
</tr>
<tr>
<td>Audio In/Out</td>
<td>PC audio-in, headphone out</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Convenience</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-in speaker (typ.)</td>
<td>2 W x 2</td>
</tr>
<tr>
<td>Built-in webcam</td>
<td>2.0 megapixel camera with Microphone and LED indicator</td>
</tr>
<tr>
<td>Multi View</td>
<td>PiP/PbP mode, 2×devices</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>User Convenience</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSD Languages</td>
<td>English, German, Spanish, Greek, French, Italian, Hungarian, Dutch, Portuguese, Brazil Portuguese, Polish, Russian, Swedish, Finnish, Turkish, Czech, Ukrainian, Simplified Chinese, Traditional Chinese, Japanese, Korean</td>
</tr>
</tbody>
</table>

| Other Convenience                   | VESA mount(100×100mm), Kensington Lock |
| Plug & Play Compatibility           | DDC/CI, sRGB, Windows 8.1/8/7, Mac OS X |

<table>
<thead>
<tr>
<th>Stand</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 7. Technical Specifications

### Picture/Display
- **Tilt**: -5 / +20 degree
- **Swivel**: -175 / +175 degree
- **Height adjustment**: 130mm
- **Pivot**: 90 degree

### Power
- **On Mode**: 43.6W (typ.), 76.4W (max.)
- **Sleep (Standby)**: <0.5W (typ.)
- **Off**: <0.5W (typ.)
- **On Mode (ECO mode)**: 20.6W (typ.)

### Power (EnergyStar test method)

<table>
<thead>
<tr>
<th>Energy Consumption</th>
<th>AC Input Voltage at 100VAC , 50Hz</th>
<th>AC Input Voltage at 115VAC , 60Hz</th>
<th>AC Input Voltage at 230VAC , 50Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Operation</td>
<td>30.11W (typ.)</td>
<td>29.99W (typ.)</td>
<td>28.59W (typ.)</td>
</tr>
<tr>
<td>Sleep (Standby)</td>
<td>&lt;0.78W (typ.)</td>
<td>&lt;0.78W (typ.)</td>
<td>&lt;0.82W (typ.)</td>
</tr>
<tr>
<td>Off</td>
<td>&lt;0.2W (typ.)</td>
<td>&lt;0.2W (typ.)</td>
<td>&lt;0.23W (typ.)</td>
</tr>
<tr>
<td>Heat Dissipation*</td>
<td>AC Input Voltage at 100VAC , 50Hz</td>
<td>AC Input Voltage at 115VAC , 60Hz</td>
<td>AC Input Voltage at 230VAC , 50Hz</td>
</tr>
<tr>
<td>Normal Operation</td>
<td>102.78 BTU/hr (typ.)</td>
<td>102.35 BTU/hr (typ.)</td>
<td>97.58 BTU/hr (typ.)</td>
</tr>
<tr>
<td>Sleep (Standby)</td>
<td>&lt;2.67 BTU/hr (typ.)</td>
<td>&lt;2.67 BTU/hr (typ.)</td>
<td>&lt;2.79 BTU/hr (typ.)</td>
</tr>
<tr>
<td>Off</td>
<td>&lt;0.67 BTU/hr (typ.)</td>
<td>&lt;0.67 BTU/hr (typ.)</td>
<td>&lt;0.78 BTU/hr (typ.)</td>
</tr>
<tr>
<td>Power LED indicator</td>
<td>On mode: White, Standby/Sleep mode: White (blinking)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PowerSensor</td>
<td>8.7W (typ.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Supply</td>
<td>External, 100-240V AC, 50-60Hz</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions
- **Product with stand (WxHxD)**: 531 x 422 x 256 mm
- **Product without stand (WxHxD)**: 531 x 363 x 52 mm

### Weight
- **Product with stand**: 5.85 kg
- **Product without stand**: 3.36 kg
- **Product with packaging**: 9.625 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 and energy

| ROHS | YES |
| EPEAT | Gold ([www.epeat.net](http://www.epeat.net)) |
| Packaging | 100% recyclable |
| Specific Substances | 100% PVC BFR free housing |
| EnergyStar | YES |

### Compliance and standards

| Regulatory Approvals | CE Mark, FCC Class B, SEMKO, cETLus, CU-EAC, TCO Edge, TUV-GS, TUV-ERGO, EPA, PSB, WEEE, RCM, UKRAINIAN, CCC, CECP, PSE, KC, ICES-003, E-standby, J-MOSS |

### Cabinet

| Color | Silver/Black |
| Finish | Texture |

---

**Note**

1. EPEAT Gold or Silver is valid only where Philips registers the product. Please visit [www.epeat.net](http://www.epeat.net) for registration status in your country.

2. This data is subject to change without notice. Go to [www.philips.com/support](http://www.philips.com/support) to download the latest version of leaflet.

3. Smart response time is the optimum value from either GtG or GtG (BW) tests.
7. Technical Specifications

7.1 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)

<table>
<thead>
<tr>
<th>H. freq (kHz)</th>
<th>Resolution</th>
<th>V. freq (Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.47</td>
<td>720 x 400</td>
<td>70.09</td>
</tr>
<tr>
<td>31.47</td>
<td>640 x 480</td>
<td>59.94</td>
</tr>
<tr>
<td>35.00</td>
<td>640 x 480</td>
<td>66.67</td>
</tr>
<tr>
<td>37.86</td>
<td>640 x 480</td>
<td>72.81</td>
</tr>
<tr>
<td>37.50</td>
<td>640 x 480</td>
<td>75.00</td>
</tr>
<tr>
<td>37.88</td>
<td>800 x 600</td>
<td>60.32</td>
</tr>
<tr>
<td>46.88</td>
<td>800 x 600</td>
<td>75.00</td>
</tr>
<tr>
<td>48.36</td>
<td>1024 x 768</td>
<td>60.00</td>
</tr>
<tr>
<td>60.02</td>
<td>1024 x 768</td>
<td>75.03</td>
</tr>
<tr>
<td>44.77</td>
<td>1280 x 720</td>
<td>59.86</td>
</tr>
<tr>
<td>60</td>
<td>1280 x 960</td>
<td>60</td>
</tr>
<tr>
<td>63.89</td>
<td>1280 x 1024</td>
<td>60.02</td>
</tr>
<tr>
<td>79.98</td>
<td>1280 x 1024</td>
<td>75.03</td>
</tr>
<tr>
<td>55.94</td>
<td>1440 x 900</td>
<td>59.89</td>
</tr>
<tr>
<td>70.64</td>
<td>1440 x 900</td>
<td>74.98</td>
</tr>
<tr>
<td>65.29</td>
<td>1680 x 1050</td>
<td>59.95</td>
</tr>
<tr>
<td>67.50</td>
<td>1920 x 1080</td>
<td>60.00</td>
</tr>
<tr>
<td>88.79</td>
<td>2560 x 1440</td>
<td>59.95</td>
</tr>
<tr>
<td>65.69</td>
<td>3840 x 2160</td>
<td>29.98</td>
</tr>
<tr>
<td>133.31</td>
<td>3840 x 2160</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Note

- 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: 1920x1080 @ 60Hz
  - DVI: 3840x2160 @ 30Hz, 2560x1440 @ 60Hz

HDMI 2.0/DisplayPort: 3840x2160 @ 60Hz, 3840x2160 @ 30Hz

- The factory default setting DisplayPort v1.1 supports to the resolution 3840x2160 @ 30 Hz. For optimized resolution 3840x2160 @ 60Hz, please enter to OSD menu and change the setting to DisplayPort v1.2, also please make sure your graphic card supports DisplayPort v1.2.

  Setting path: [OSD] / [Setup] / [DisplayPort] / [1.1, 1.2]

- HDMI 1.4/2.0 setting: The factory default setting is at HDMI 1.4, which supports most Blu-Ray/DVD players on the market. You can change the setting to HDMI 2.0, if your Blu-Ray/DVD player supports it.

  Setting path: [OSD] / [Setup] / [HDMI] / [1.4, 2.0]
8. 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:

<table>
<thead>
<tr>
<th>Power Management Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>VESA Mode</td>
</tr>
<tr>
<td>Active</td>
</tr>
<tr>
<td>Sleep (Standby)</td>
</tr>
<tr>
<td>Off</td>
</tr>
</tbody>
</table>

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

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

Note
This data is subject to change without notice.
9. Regulatory Information

Congratulations!
This product is TCO Certified - for Sustainable IT

TCO Certified is an international third party sustainability certification for IT products.

TCO Certified ensures that the manufacture, use and recycling of IT products reflect environmental, social and economic responsibility. Every TCO Certified product model is verified by an accredited independent test laboratory.

Along with meeting all requirements in TCO Certified, this product also meets the exclusive TCO Certified Edge certification, recognizing best in class products in a specific sustainability attribute.

Summary of TCO Certified Criteria:
Corporate Social Responsibility
Socially responsible production - working conditions and labor law in manufacturing country

Energy Efficiency
Energy efficiency of product and power supply. Energy Star compliant, where applicable

Environmental Management System
Manufacturer must be certified according to either ISO 14001 or EMAS

Minimization of Hazardous Substances
Limits on cadmium, mercury, lead & hexavalent chromium including requirements for mercury-free products, halogenated substances and hazardous flame retardants

Design for Recycling
Coding of plastics for easy recycling. Limit on the number of different plastics used.

Product Lifetime, Product Take Back
Minimum one-year product warranty. Minimum three-year availability of spare parts. Product takeback

Packaging
Limits on hazardous substances in product packaging. Packaging prepared for recycling

Ergonomic, User-centered design
Visual ergonomics in products with a display. Adjustability for user comfort (displays, headsets) Acoustic performance-protocal against sound spikes (headsets) and fan noise (projectors, computers) Ergonomically designed keyboard (notebooks)

Electrical Safety, minimal electro-magnetic Emissions

Third Party Testing
All certified product models have been tested in an independent, accredited laboratory.

A detailed criteria set is available for download at www.tcodevelopment.com, where you can also find a searchable database of all TCO Certified IT products.

TCO Development, the organization behind TCO Certified, has been an international driver in the field of Sustainable IT for 20 years. Criteria in TCO Certified are developed in collaboration with scientists, experts, users and manufacturers. Organizations around the world rely on TCO Certified as a tool to help them reach their sustainable IT goals. We are owned by TCO, a non-profit organization representing office workers. TCO Development is headquartered in Stockholm, Sweden, with regional presence in North America and Asia.

For more information, please visit: www.tcodevelopment.com

User define mode is used for TCO Certified compliance.
9. Regulatory Information

Lead-free Product

Lead-free display promotes environmentally sound recovery and disposal of waste from electrical and electronic equipment. Toxic substances like Lead has been eliminated and compliance with European community’s stringent RoHs directive mandating restrictions on hazardous substances in electrical and electronic equipment have been adhered to in order to make Philips monitors safe to use throughout its life cycle.

EPEAT

(www.epeat.net)

The EPEAT (Electronic Product Environmental Assessment Tool) program evaluates computer desktops, laptops, and monitors based on 51 environmental criteria developed through an extensive stakeholder consensus process supported by US EPA.

EPEAT system helps purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes. EPEAT also provides a clear and consistent set of performance criteria for the design of products, and provides an opportunity for manufacturers to secure market recognition for efforts to reduce the environmental impact of its products.

Benefits of EPEAT

Reduce use of primary materials
Reduce use of toxic materials
Avoid the disposal of hazardous waste EPEAT’S requirement that all registered products meet ENERGY STAR’s energy efficiency specifications, means that these products will consume less energy throughout their life.

CE Declaration of Conformity

This product is in conformity with the following standards

- EN61000-3-3:2008 (Limitation of Voltage Fluctuation and Flicker) following provisions of directives applicable.
- 2006/95/EC (Low Voltage Directive).

And is produced by a manufacturing organization on ISO9000 level.

9. Regulatory Information

Energy Star Declaration
(www.energystar.gov)

As an ENERGY STAR® Partner, we have determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

Note
We recommend you switch off the monitor when it is not in use for a long time.

Federal Communications Commission (FCC) Notice (U.S. Only)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

⚠️ Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

Use only RF shielded cable that was supplied with the monitor when connecting this monitor to a computer device.

To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or excessive moisture.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

FCC Declaration of Conformity
Declaration of Conformity for Products Marked with FCC Logo,

United States Only

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Commission Federale de la Communication (FCC Declaration)

Cet équipement a été testé et déclaré conforme aux limites des appareils numériques de class B,aux termes de l'article 15 Des règles de la FCC. Ces limites sont conçues de façon à fournir une protection raisonnable contre les interférences nuisibles dans le cadre d'une installation résidentielle.

CET appareil produit, utilise et peut émettre des hyperfréquences qui, si l'appareil n'est pas installé et utilisé selon les consignes données, peuvent causer des interférences.
9. Regulatory Information

EN 55022 Compliance (Czech Republic Only)

This device belongs to category B devices as described in EN 55022. Unless it is specifically stated that it is a Class A device on the specification label. The following applies to devices in Class A of EN 55022 (radiation up to 30 MHz).

The user of this device is obliged to take all steps necessary to remove sources of interference to telecommunications or other devices.

Polish Center for Testing and Certification Notice

Notice
The equipment should draw power from a socket with an attached protection circuit (a three-prong socket). All equipment that works together (computer, monitor, printer, and so on) should have the same power supply source.

The phasing conductor of the room's electrical installation should have a reserve short-circuit protection device in the form of a fuse with a nominal value no larger than 16 amperes (A).

To completely switch off the equipment, the power supply cable must be removed from the power supply socket, which should be located near the equipment and easily accessible.

A protection mark "B" confirms that the equipment is in compliance with the protection usage requirements of standards PN-93/T-42107 and PN-89/E-06251.

Wymagania Polskiego Centrum Badań i Certyfikacji

Użytkownikowi powinno być zawsze z podanymi w niniejszym dokumencie warunkami ochrony cytowanym z uwagi na prawo do zmiany w żadnym przypadku, w tym w zależności od przewidywanych zmian, które mogą być wprowadzone w przyszłości.

W celu zminimalizowania szkód dla osób trzecich, należy zawsze zainstalować podłączenie zabezpieczające w formie złączki, która powinna umożliwiać wyciszenie urządzenia i być łatwo dostępne.

Znak bezpieczeństwa "B" potwierdza zgodność urządzenia z wymaganiami bezpieczeństwa czynnika zasilania zawartymi w PN-93/T-42107 i PN-89/E-06251.

Pozostale instrukcje bezpieczeństwa

- Należy stosować się do wszystkich instrukcji bezpieczeństwa zawartych w niniejszym dokumencie, z wyłączeniem potrzeb związanych z przewidywanymi zmianami, które mogą być wprowadzone w przyszłości.
- System komputerowy należy podłączać tylko do zasilania, wyznaczonego do systemu komputerowego i zgodnego z wymaganiami bezpieczeństwa.
- System komputerowy powinien znajdować się z dala od grafików i żółtej ciepła. Ponadto, na jego podstawie można podłączyć do systemu komputerowego za pomocą przewodów zgodnych z wymaganiami bezpieczeństwa.
- W celu zminimalizowania szkód dla osób trzecich, należy podłączyć system komputerowy do zasilania zgodnego z wymaganiami bezpieczeństwa.
- System komputerowy powinien znajdować się z dala od grafików i żółtej ciepła. Ponadto, na jego podstawie można podłączyć do systemu komputerowego za pomocą przewodów zgodnych z wymaganiami bezpieczeństwa.
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Ergonomie Hinweis (nur Deutschland)

Der von uns gelieferte Farbmonitor entspricht den in der "Verordnung über den Schutz vor Schäden durch Röntgenstrahlen" festgelegten Vorschriften.

Auf der Rückwand des Gerätes befindet sich ein Aufkleber, der auf die Unbedenklichkeit der Inbetriebnahme hinweist, da die Vorschriften über die Bauart von Störstrahlern nach Anlage III § 5 Abs. 4 der Röntgenverordnung erfüllt sind.

Damit Ihr Monitor immer den in der Zulassung geforderten Werten entspricht, ist darauf zu achten, daß

1. Reparaturen nur durch Fachpersonal durchgeführt werden.
2. nur original-Ersatzteile verwendet werden.
3. bei Ersatz der Bildröhre nur eine bauartgleiche eingebaut wird.

Aus ergonomischen Gründen wird empfohlen, die Grundfarben Blau und Rot nicht auf dunklem Untergrund zu verwenden (schlechte Lesbarkeit und erhöhte Augenbelastung bei zu geringem Zeichenkontrast wären die Folge).

Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 beträgt 70dB (A) oder weniger.

ACHTUNG: BEIM AUFSTELLEN DIESES GERÄTES DARAUF ACHTEN, DAß NETZSTECKER UND NETZKABELANSCHLUß LEICH T ZUGÄNGLICH SIND.
The European Energy Label informs you on the energy efficiency class of this product. The greener the energy efficiency class of this product is the lower the energy it consumes.

On the label, you can find the energy efficiency class, the average power consumption of this product in use and the average energy consumption for 1 year.

Note
The EU Energy Label will be ONLY applied on the models bundling with HDMI and TV tuners.

China RoHS
The People's Republic of China released a regulation called "Management Methods for Controlling Pollution by Electronic Information Products" or commonly referred to as China RoHS. All products produced and sold for China market have to meet China RoHS request.

中国大陆RoHS
根据中国大陆《电子电气产品有害物质限制使用标识要求》，以下部分列出了本产品中可能包含的有害物质的名称和含量

<table>
<thead>
<tr>
<th>本表适用之产品</th>
<th>显示器</th>
<th>平板电视</th>
<th>监视器</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>部件名称</th>
<th>铅 (Pb)</th>
<th>汞 (Hg)</th>
<th>镉 (Cd)</th>
<th>六价铬 (Cr6+)</th>
<th>多溴联苯 (PBB)</th>
<th>多溴二苯醚 (PBDE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>外壳</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>液晶显示屏/灯管</td>
<td>○</td>
<td>X</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>电路板组件</td>
<td>X</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>软电源适配线</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>电源线/连接线</td>
<td>X</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>遥控器</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

本表格根据SJ/T 11364的规定编制。

*: 电路板组件包括印刷电路板及其构成的零部件，如电阻、电容、集成电路、连接器等。
○: 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超过GB/T 26572规定的限量要求。

上表中打“X”的部件，应功能需要，部分有害物质含量超出GB/T 26572规定的限量要求，但符合欧盟RoHS法规要求（属于豁免部分）。

Restriction on Hazardous Substances statement (India)
This product complies with the “India E-waste Rule 2011” and prohibits use of lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers in concentrations exceeding 0.1 weight % and 0.01 weight % for cadmium, except for the exemptions set in Schedule 2 of the Rule.
E-Waste Declaration for India

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling in India please visit the below web link.

http://www.india.philips.com/about/sustainability/recycling/index.page

Information for U.K. only

WARNING - THIS APPLIANCE MUST BE EARTHED.

Important:

This apparatus is supplied with an approved moulded 13A plug. To change a fuse in this type of plug proceed as follows:

1. Remove fuse cover and fuse.
2. Fit new fuse which should be a BS 1362 5A, A.S.T.A. or BSI approved type.
3. Retit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate 3-pin plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5A. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5A.

NOTE: The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13A socket elsewhere.

How to connect a plug

The wires in the mains lead are coloured in accordance with the following code:
9. Regulatory Information

BLUE - “NEUTRAL” (“N”)
BROWN - “LIVE” (“L”)
GREEN&YELLOW - “EARTH” (“E”)

1. The GREEN&YELLOW wire must be connected to the terminal in the plug which is marked with the letter "E" or by the Earth symbol or coloured GREEN or GREEN&YELLOW.

2. The BLUE wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.

3. The BROWN wire must be connected to the terminal which is marked with the letter "L" or coloured RED.

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the three wires.
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.

Note
1. 1 or 2 adjacent sub pixel defects = 1 dot defect
2. This monitor 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.

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

<table>
<thead>
<tr>
<th>Description</th>
<th>ACCEPTABLE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 lit subpixel</td>
<td>3</td>
</tr>
<tr>
<td>2 adjacent lit subpixels</td>
<td>1</td>
</tr>
<tr>
<td>3 adjacent lit subpixels (one white pixel)</td>
<td>0</td>
</tr>
<tr>
<td>Distance between two bright dot defects*</td>
<td>&gt;15mm</td>
</tr>
<tr>
<td>Total bright dot defects of all types</td>
<td>3</td>
</tr>
</tbody>
</table>

### BLACK DOT DEFECTS

<table>
<thead>
<tr>
<th>Description</th>
<th>ACCEPTABLE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 dark subpixel</td>
<td>5 or fewer</td>
</tr>
<tr>
<td>2 adjacent dark subpixels</td>
<td>2 or fewer</td>
</tr>
<tr>
<td>3 adjacent dark subpixels</td>
<td>0</td>
</tr>
<tr>
<td>Distance between two black dot defects*</td>
<td>&gt;15mm</td>
</tr>
<tr>
<td>Total black dot defects of all types</td>
<td>5 or fewer</td>
</tr>
</tbody>
</table>

### TOTAL DOT DEFECTS

<table>
<thead>
<tr>
<th>Description</th>
<th>ACCEPTABLE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total bright or black dot defects of all types</td>
<td>5 or fewer</td>
</tr>
</tbody>
</table>
10. Customer care and warranty

10.2 Customer Care & Warranty

For warranty coverage information and additional support requirement valid for your region, please visit www.philips.com/support website for details. You may also contact your local Philips Customer Care Center number listed below.

Contact Information for WESTERN EUROPE region:

<table>
<thead>
<tr>
<th>Country</th>
<th>CSP</th>
<th>Hotline Number</th>
<th>Price</th>
<th>Opening Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>RTS</td>
<td>+43 0810 000206</td>
<td>€ 0.07</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Belgium</td>
<td>Ecare</td>
<td>+32 078 250851</td>
<td>€ 0.06</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Alman</td>
<td>800 92 256</td>
<td>Free of charge</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Denmark</td>
<td>Infocare</td>
<td>+45 3525 8761</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Finland</td>
<td>Infocare</td>
<td>+358 09 2290 1908</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>France</td>
<td>Mainteq</td>
<td>+33 082161 1658</td>
<td>€ 0.09</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Germany</td>
<td>RTS</td>
<td>+49 01803 386 853</td>
<td>€ 0.09</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Greece</td>
<td>Alman</td>
<td>+30 00800 3122 1223</td>
<td>Free of charge</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Ireland</td>
<td>Celestica</td>
<td>+353 01 601 1161</td>
<td>Local call tariff</td>
<td>Mon to Fri : 8am - 5pm</td>
</tr>
<tr>
<td>Italy</td>
<td>Anovo Italy</td>
<td>+39 840 320 041</td>
<td>€ 0.08</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Ecare</td>
<td>+352 26 84 30 00</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Ecare</td>
<td>+31 0900 0400 063</td>
<td>€ 0.10</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Norway</td>
<td>Infocare</td>
<td>+47 2270 8250</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Poland</td>
<td>MSI</td>
<td>+48 0223491505</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Portugal</td>
<td>Mainteq</td>
<td>800 780 902</td>
<td>Free of charge</td>
<td>Mon to Fri : 8am - 5pm</td>
</tr>
<tr>
<td>Spain</td>
<td>Mainteq</td>
<td>+34 902 888 785</td>
<td>€ 0.10</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Sweden</td>
<td>Infocare</td>
<td>+46 08 632 0016</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>Switzerland</td>
<td>ANOVO CH</td>
<td>+41 02 2310 2116</td>
<td>Local call tariff</td>
<td>Mon to Fri : 9am - 6pm</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Celestica</td>
<td>+44 0207 949 0069</td>
<td>Local call tariff</td>
<td>Mon to Fri : 8am - 5pm</td>
</tr>
</tbody>
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Contact Information for China:

<table>
<thead>
<tr>
<th>Country</th>
<th>Call center</th>
<th>Consumer care number</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>PCCW Limited</td>
<td>4008 800 008</td>
</tr>
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</table>

Contact Information for NORTH AMERICA :

<table>
<thead>
<tr>
<th>Country</th>
<th>Call center</th>
<th>Consumer care number</th>
</tr>
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<tbody>
<tr>
<td>U.S.A.</td>
<td>EPI-e-center</td>
<td>(877) 835-1838</td>
</tr>
<tr>
<td>Canada</td>
<td>EPI-e-center</td>
<td>(800)479-6696</td>
</tr>
</tbody>
</table>
Contact Information for CENTRAL AND EASTERN EUROPE region:

<table>
<thead>
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<th>Country</th>
<th>Call center</th>
<th>CSP</th>
<th>Consumer care number</th>
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<tbody>
<tr>
<td>Belarus</td>
<td>NA</td>
<td>IBA</td>
<td>+375 17 217 3386</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+375 17 217 3389</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>NA</td>
<td>LAN Service</td>
<td>+359 2 960 2360</td>
</tr>
<tr>
<td>Croatia</td>
<td>NA</td>
<td>MR Service Ltd</td>
<td>+385 (01) 640 1111</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>NA</td>
<td>Asupport</td>
<td>420 272 188 300</td>
</tr>
<tr>
<td>Estonia</td>
<td>NA</td>
<td>FUJITSU</td>
<td>+372 6519900(General)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+372 6519972(Workshop)</td>
</tr>
<tr>
<td>Georgia</td>
<td>NA</td>
<td>Esabi</td>
<td>+995 322 91 34 71</td>
</tr>
<tr>
<td>Hungary</td>
<td>NA</td>
<td>Profi Service</td>
<td>+36 1 814 8080(General)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+36 1814 8565(For AOC&amp;Philips only)</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>NA</td>
<td>Classic Service I.I.c.</td>
<td>+7 727 3097515</td>
</tr>
<tr>
<td>Latvia</td>
<td>NA</td>
<td>ServiceNet LV</td>
<td>+371 67460399</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+371 27260399</td>
</tr>
<tr>
<td>Lithuania</td>
<td>NA</td>
<td>UAB Servicenet</td>
<td>+370 37 400160(general)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>+370 7400088 (For Philips)</td>
</tr>
<tr>
<td>Macedonia</td>
<td>NA</td>
<td>AMC</td>
<td>+389 2 3125097</td>
</tr>
<tr>
<td>Moldova</td>
<td>NA</td>
<td>Comel</td>
<td>+37322224035</td>
</tr>
<tr>
<td>Romania</td>
<td>NA</td>
<td>Skin</td>
<td>+40 21 2101969</td>
</tr>
<tr>
<td>Russia</td>
<td>NA</td>
<td>CPS</td>
<td>+7 (495) 645 6746</td>
</tr>
<tr>
<td>Serbia&amp;Montenegro</td>
<td>NA</td>
<td>KimTec d.o.o.</td>
<td>+381 11 20 70 684</td>
</tr>
<tr>
<td>Slovakia</td>
<td>NA</td>
<td>Datalan Service</td>
<td>+421 2 49207155</td>
</tr>
<tr>
<td>Slovenia</td>
<td>NA</td>
<td>PC H.and</td>
<td>+386 1 530 08 24</td>
</tr>
<tr>
<td>the republic of Belarus</td>
<td>NA</td>
<td>ServiceBy</td>
<td>+375 17 284 0203</td>
</tr>
<tr>
<td>Turkey</td>
<td>NA</td>
<td>Tecpro</td>
<td>+90 212 444 4 832</td>
</tr>
<tr>
<td>Ukraine</td>
<td>NA</td>
<td>Topaz</td>
<td>+38044 525 64 95</td>
</tr>
<tr>
<td>Ukraine</td>
<td>NA</td>
<td>Comel</td>
<td>+380 5627444225</td>
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Contact Information for LATIN AMERICA region:

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>Vermont</td>
<td>0800-7254101</td>
</tr>
<tr>
<td>Argentina</td>
<td></td>
<td>0800 3330 856</td>
</tr>
</tbody>
</table>
## Contact Information for APMEA region:

<table>
<thead>
<tr>
<th>Country</th>
<th>ASP</th>
<th>Consumer care number</th>
<th>Opening hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>AGOS NETWORK PTY LTD</td>
<td>1300 360 386</td>
<td>Mon.~Fri. 9:00am-5:30pm</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Visual Group Ltd.</td>
<td>0800 657447</td>
<td>Mon.~Fri. 8:30am-5:30pm</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Company: Smart Pixels Technology Ltd.</td>
<td>Hong Kong: Tel: +852 2619 9639 Macau: Tel: (853)-0800-987</td>
<td>Mon.~Fri. 9:00am-6:00pm Sat. 9:00am-1:00pm</td>
</tr>
<tr>
<td>India</td>
<td>REDINGTON INDIA LTD</td>
<td>Tel: 1 800 425 6396 SMS: PHILIPS to 56677</td>
<td>Mon.~Fri. 9:00am-5:30pm</td>
</tr>
<tr>
<td>Indonesia</td>
<td>PT. CORMIC SERVISINDO PERKASA</td>
<td>+62-21-4080-9086 (Customer Hotline) +62-8888-01-9086 (Customer Hotline)</td>
<td>Mon.~Thu. 08:30-12:00; 13:00-17:30 Fri. 08:30-11:30; 13:00-17:30</td>
</tr>
<tr>
<td>Korea</td>
<td>Alphascan Displays, Inc</td>
<td>1661-5003</td>
<td>Mon.~Fri. 9:00am-5:30pm Sat. 9:00am-1:00pm</td>
</tr>
<tr>
<td>Malaysia</td>
<td>R-Logic Sdn Bhd</td>
<td>+603 5102 3336</td>
<td>Mon.~Fri. 8:15am-5:00pm Sat. 8:30am-12:30am</td>
</tr>
<tr>
<td>Pakistan</td>
<td>TVONICS Pakistan</td>
<td>+92-213-6030100</td>
<td>Sun.~Thu. 10:00am-6:00pm</td>
</tr>
<tr>
<td>Singapore</td>
<td>Philips Electronics Singapore Pte Ltd (Philips Consumer Care Center)</td>
<td>(65) 6882 3966</td>
<td>Mon.~Fri. 9:00am-6:00pm Sat. 9:00am-1:00pm</td>
</tr>
<tr>
<td>Taiwan</td>
<td>FETEC.CO</td>
<td>0800-231-099</td>
<td>Mon.~Fri. 09:00 - 18:00</td>
</tr>
<tr>
<td>Thailand</td>
<td>Axis Computer System Co., Ltd.</td>
<td>(662) 934-5498</td>
<td>Mon.<del>Fri. 8:30am</del>5:30pm</td>
</tr>
<tr>
<td>South Africa</td>
<td>Computer RepairTechnologies</td>
<td>011 262 3586</td>
<td>Mon.<del>Fri. 8:00am</del>5:00pm</td>
</tr>
<tr>
<td>Israel</td>
<td>Eatronics LTD</td>
<td>1-800-567000</td>
<td>Sun.~Thu. 08:00-18:00</td>
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<tr>
<td>Vietnam</td>
<td>FPT Service Informatic Company Ltd. - Ho Chi Minh City Branch</td>
<td>+84 8 38248007 Ho Chi Minh City +84 5113.562666 Danang City +84 5113.562666 Can tho Province</td>
<td>Mon.~Fri. 8:00-12:00, 13:30-17:30,Sat. 8:00-12:00</td>
</tr>
<tr>
<td>Philippines</td>
<td>EA Global Supply Chain Solutions ,Inc.</td>
<td>(02) 655-7777; 6359456</td>
<td>Mon.<del>Fri. 8:30am</del>5:30pm</td>
</tr>
<tr>
<td>Armenia</td>
<td>Firebird service centre</td>
<td>+97 14 8837911</td>
<td>Sun.~Thu. 09:00 - 18:00</td>
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<tr>
<td>Azerbaijan</td>
<td>Soniko Plus Private Enterprise Ltd</td>
<td>+99871 2784650</td>
<td>Mon.~Fri. 09:00 - 18:00</td>
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<tr>
<td>Georgia</td>
<td>Technostar Service Centre</td>
<td>+(99312) 460733, 460957</td>
<td>Mon.~Fri. 09:00 - 18:00</td>
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<td>Kyrgyzstan</td>
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<td>Turkmenistan</td>
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<tr>
<td>Japan</td>
<td>サポートセンター</td>
<td>0120-060-530</td>
<td>Mon.~Fri. 10:00 - 17:00</td>
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</table>
11. Troubleshooting & FAQs

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 front 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 on.
- 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 Attention

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.
**11. Troubleshooting & FAQs**

- 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 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-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 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 Consumer Information Centers list and contact Philips customer service representative.

**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 × 2160 @ 60 Hz.
- 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 × 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 × 2160 @ 60 Hz.
- 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 on the CD-ROM? How do I install the drivers (.inf and .icm)?

Ans.: These are the driver files for your monitor. Follow the instructions in your user manual to install the drivers. Your computer may ask you for monitor drivers (.inf and .icm files) or a driver disk when you first install your monitor. Follow the instructions to insert the companion CD-ROM included in this package. 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 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 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 "Down Arrow" to select the option "Color" then press "OK" to enter color setting, there are three settings as below.

1. Color Temperature: The six settings are 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, blue-white toning".

2. sRGB: This is a standard setting for ensuring correct exchange of colors between different devices (e.g. digital cameras, monitors, 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 Kelvin 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 Plug-and-Play?
Ans.: Yes, the monitors are Plug-and-Play compatible with Windows 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 "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 monitor unattended.
Always activate a periodic screen refresh application if your LCD monitor 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 monitor works best at its native resolution of 3840 × 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 monitor pops out “Attention” to show the unlock/lock status as shown below illustrators.
11.3 Multiview FAQs

Q1: Why I cannot activate PiP or PbP when the sources are DVI and HDMI?
Ans.: Please refer to below table for the main source and its supporting sub source.

<table>
<thead>
<tr>
<th>MAIN SOURCE (xl)</th>
<th>Inputs</th>
<th>SUB SOURCE POSSIBILITY (xl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGA</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>DP</td>
<td>•</td>
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</tr>
<tr>
<td>DVI</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>MHL-HDMI</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

Q2: 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.

Q3: 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 monitor, the monitor 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.

11.4 MHL FAQs

Q1: I cannot see my mobile device image on the monitor screen
Ans.:
• Please check if your mobile device is MHL certified.
• You also need to have a MHL certified cable to connect the devices.
• Make sure that you have connected to the MHL-HDMI port, and that correct input is selected on the Monitor via the input selector (front bezel or OSD)
• The product is officially MHL-certified. As this monitor is a passive display, if you encounter any unexpected troubles when using the MHL input, please refer to the mobile device’s user manual or contact the manufacturer of the mobile device.

Q2: Why is the image on the monitor display of poor quality? My mobile device looks far better.
Ans.:
• Make sure your mobile device has not entered standby (sleep) mode. If it has, then you will see a notification message on the display. Once the mobile device wakes up, the monitor’s display will wake and show the images. You may need to make sure that the correct input is selected if in between you have used or connected any other device.
low resolution (example QVGA) it may look good on the mobile device due to its small screen size, but will look to be of lower quality on the large screen monitor display.

Q3. I cannot hear sound from the monitor display.

Ans.:

• Make sure your monitor display has built-in speakers and the volume is turned on the monitor side, and also on the mobile device side. You may also want to use optional headphones.

• If your monitor display does not have in built speakers, then you can connect optional headphones to the output on the monitor. Please ensure that the volume is turned on the monitor side, and also on the mobile device side.

For further information or FAQ, please visit official website of MHL org:

http://www.mhlconsortium.org