Brilliance

S221C3



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EN	User manual	1
	Customer care and warranty	31
	Troubleshooting & FAQs	37

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Table of Contents

1. For Your Safety 1
   - 1.1 Precautions 1
   - 1.2 Cleaning 2
   - 1.3 Special notes on SMART All-in-One ..2
   - 1.4 Disposal of product and packing material 3

2. Setting up the monitor 4
   - 2.1 Installation 4
   - 2.2 Operating the monitor 6
   - 2.3 Detach the hinge for VESA 8
   - 2.4 SMART All-in-One Operation 10

3. Image Optimization 15
   - 3.1 SmartImage 15

4. Technical Specifications 17
   - 4.1 Resolution & Preset PC Modes 19

5. Power Management 20

6. Regulatory Information 21

7. Customer care and warranty 31
   - 7.1 Philips' Flat Panel Monitors Pixel Defect Policy 31
   - 7.2 Customer Care & Warranty 34

8. Troubleshooting & FAQs 37
   - 8.1 Troubleshooting 37
   - 8.2 General FAQs 38
   - 8.3 SMART All-in-One FAQs 40

1. For Your Safety

Before operating the SMART All-in-One, please read this manual thoroughly. This manual should be retained for future reference.

FCC Class B Radio Frequency Interference Statement

WARNING: (FOR FCC CERTIFIED MODELS)

NOTE:

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:

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

NOTICE:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibilities of the user to correct such interference.

WARNING:

To prevent fire or shock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

1.1 Precautions

- Do not use the SMART All-in-One near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, swimming pool or in a wet basement.
- Do not place the SMART All-in-One on an unstable cart, stand, or table. If the SMART All-in-One falls, it can injure a person and cause serious damage to the appliance. Use only a cart or stand recommended by the manufacturer or sold with the SMART All-in-One.
- Slots and openings in the back and bottom of the cabinet are provided for ventilation. To ensure reliable operation of the SMART All-in-One and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the SMART All-in-One on a bed, sofa, rug, or similar surface. Do not place the SMART All-in-One near or over a radiator or heat register. Do not place the SMART All-in-One in a bookcase or cabinet unless proper ventilation is provided.
- The SMART All-in-One should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.

- The SMART All-in-One is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightening storm or when it will not be used for long period of time. This will protect the SMART All-in-One from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the SMART All-in-One cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the SMART All-in-One.
- Do not attempt to service the SMART All-in-One by yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- To ensure satisfactory operation, use the SMART All-in-One only with UL listed computers which have appropriate configured receptacles marked between 100 - 240V AC, Min. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- For use only with the attached power adapter (Output 19V DC) which have UL, CSA listed licensed (only for monitor with power adapter).

Model:	ADPC1965
Manufacturer:	TPV ELECTRONICS (FUJIAN) CO., LTD.
Model:	ADS-65LSI-19-1 19065G
Manufacturer:	SHENZHZEN HONOR ELECTRONIC CO., LTD.

1.2 Cleaning

- Clean the cabinet regularly with cloth. You can use soft-detergent to wipe out the stain, instead of strong-detergent which will cauterize the product cabinet.
- When cleaning, make sure no detergent is leaked into the product. The cleaning cloth should not be too rough as it will scratch the screen surface.
- Please disconnect the power cord before cleaning the product.

1.3 Special notes on SMART All-in-One

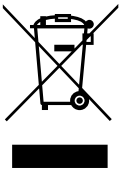
The following symptoms are normal with SMART All-in-One and do not indicate a problem.

Note

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness on the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image when the same image has been displayed for a long time. The SMART All-in-One will slowly recover from this.
- When the screen becomes black or flashing, or cannot illuminate any more, contact your dealer or service center to replace parts. Don't repair the screen by yourself!

1.4 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.

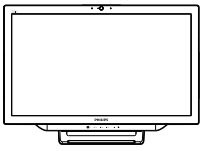
Your display is manufactured with high quality materials and components which can be recycled and reused.

To learn more about our recycling program please visit: http://www.philips.com/sites/philipsglobal/about/sustainability/ourenvironment/productrecyclingservices.page.

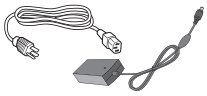
2. Setting up the monitor

2.1 Installation

1 Package contents





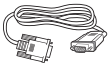


AC/DC Adapter





Audio Cable (Optional)

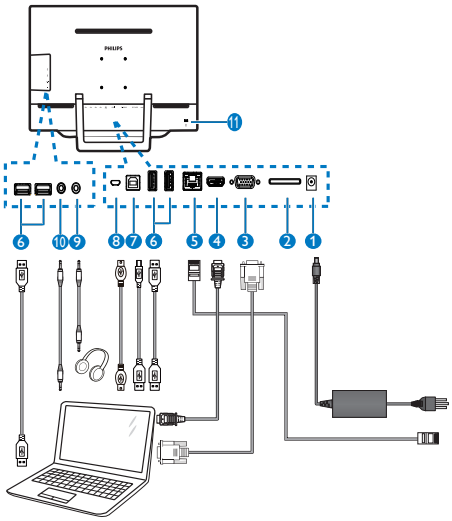


VGA Cable (Optional)

Note

- Use only the AC/DC adapter provided by Philips.
- Do not install the SMART All-in-One in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, or excessive dust or mechanical vibration or shock.
- Save the original shipping carton and packing materials, as they will come in handy if you ever have to ship your monitor.
- For maximum protection, repackage your monitor as it was originally packed at the factory.
- To keep the SMART All-in-One looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents such as thinner, benzene, or abrasive cleaners, since these will damage the cabinet. As a safety precaution, always unplug the SMART All-in-One before cleaning it.
- Do not scratch the screen with hard things, it may cause permanent damage.
- Don't leak liquid into monitor which will result in the damage of component.

2 Connection



1. DC Power Input
2. SDHC Card Slot
3. VGA Input (D-Sub)
4. HDMI Input
5. LAN Port (RJ-45)
6. USB Downstream (Type-A)
7. USB Upstream (Type-B)
8. Micro-USB (Mini-A)
9. Earphone Output (3.5 mm Stereo)
10. Audio Input (3.5 mm Stereo)
11. Kensington Anti-theft Lock

Insert your SD card

1. Disconnect the power cord.
2. Insert your SDHC card to the card slot.

Connect for VGA/HDMI input

1. Connect with VGA or HDMI cable from your PC or AV device to SMART All-in-One.
2. Connect power cord to SMART All-in-One firmly and press the power button on.
3. The SMART All-in-One turns on and enters the previous source input selected.
4. Press the input button ⊕ to select VGA or HDMI source.

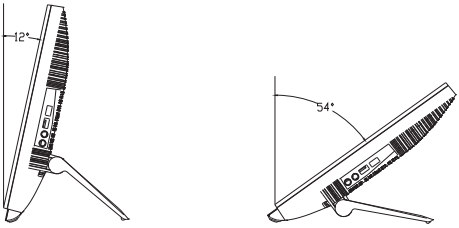
Connect to either WiFi or Ethernet for SMART All-in-One input

1. Connect RJ-45 LAN cable to your LAN port for wired connection.
2. Connect power cord to SMART All-in-One firmly and press the power button on.
3. The SMART All-in-One turns on and enters the previous source input selected.
4. Press the input button ⊕ to select Android source.
5. Turn on the WiFi or Ethernet function in the Android system settings screen.

3 Adjusting viewing angle

For optimal viewing, it is recommended to look at the full face of the SMART All-in-One, then adjust the SMART All-in-One's angle to your own preference.

The SMART All-in-One's tilted angle is adjustable from 12° to 54°.



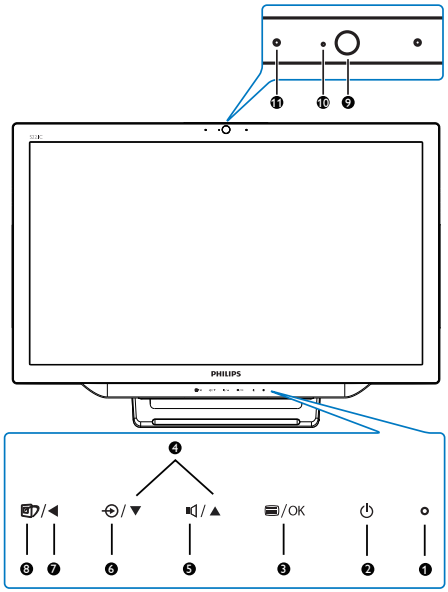
Note

- Do not touch the LCD screen when you adjust the angle. It may cause damage or break the LCD screen.
- Careful attention is required not to catch your fingers or hands when you adjust the angle.
- It is recommended to stabilize with a fixed point in order to lock the stand if the tilted angle is equal to or over 12°.
- Do not adjust the tilt angle less than 12°. The monitor may fall caused by instability.
- For displays with glossy bezels the user should consider the placement of the display as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

2.2 Operating the monitor

SMART All-in-One allows you to either use it as a stand-alone SMART All-in-One in Android system without any PC connection required, or as a normal PC monitor when connecting with PC.

1 Front control



1	○	Power indicator
2	⏻	Press to turn SMART All-in-One's power ON or OFF.
3	☰/OK	Press to access the OSD menu for VGA and HDMI input. In the OSD menu, press to confirm the OSD adjustment.
4	▲▼	In the OSD menu, adjust the OSD menu.
5	🔊	Hotkey for internal speakers volume control.
6	⇥	Press to select the input source: VGA, HDMI, or Android.
7	◀	In the OSD menu, return to previous OSD layer.
8		Hotkey for SmartImage selection.
9	1.0 Megapixel Webcam	
10	Webcam activity light	
11	Microphone	

2 Description of the On Screen Display

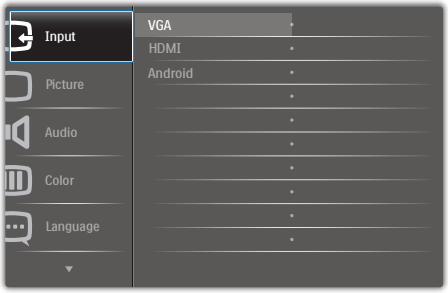
What is On-Screen Display (OSD)?

On-Screen Display (OSD) is a feature in all Philips SMART All-in-One. It allows user to adjust screen performance or to select functions of the monitor directly through an on-screen instruction window.

To enter OSD menu

1. Press the hotkey ☰ on the front bezel.
2. Press ▲ ▼ buttons to select the menu options.
3. Press ☰ button to confirm the OSD selection.
4. Press ◀ button to return to previous OSD layer.
5. Press ◀ button several times to exit the OSD menu.

A user-friendly OSD menu is shown below:



The OSD menu tree

Here is an overall view of the OSD structure for your reference to work your way around the different adjustments.

Main menu	Sub menu	
Input	VGA	
	HDMI	
	Android	
Picture	Picture Format	Wide Screen, 4:3
	Brightness	0~100
	Contrast	0~100
	SmartKolor	On, Off
	SmartTxt	On, Off
	SmartResponse	Off, Fast, Faster, Fastest
	SmartContrast	On, Off
	Gamma	1.8, 2.0, 2.2, 2.4, 2.6
	Over Scan	On, Off
Audio	Volume	0~100
	Mute	On, Off
	Audio Source	Audio In, HDMI In
Color	Color Temperature	5000K, 6500K, 7500K, 8200K,9300K,11500K
	sRGB	
	User Define	Red: 0~100
		Green: 0~100
		Blue: 0~100
Language	English, Deutsch, Español, Ελληνική, Français, Italiano, Maryar, Nederlands, Português, Português do Brazil, Polski, Русский, Svenska, Suomi, Türkçe, Čeština, Українська, 简体中文, 繁體中文, 日本語, 한국어	
OSD Settings	Horizontal	0~100
	Vertical	0~100
	Transparency	Off, 1, 2, 3, 4
	OSD Time Out	5s, 10s, 20s, 30s, 60s
Setup	Auto	
	H.Position	0~100
	V.Position	0~100
	Phase	0~100
	Clock	0~100
	Resolution Notification	On, Off
	S.Power on sync	On, Off
	Reset	Yes, No
	Information	

3 Resolution notification

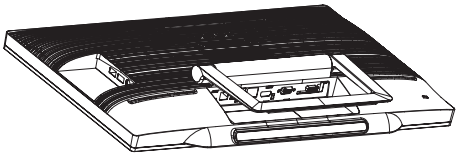
This monitor is designed for optimal performance at its native resolution, 1920×1080@60Hz.

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

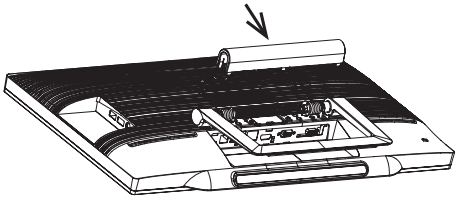
2.3 Detach the hinge for VESA

Before you start detaching the hinge, please follow the instructions below to avoid any possible damage or injury.

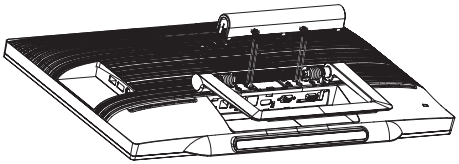
1. Place the monitor face down on a smooth surface. Pay attention not to scratch or damage the screen.



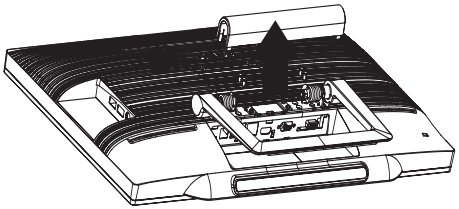
2. Use your fingers to squeeze the hinge cover gently till the hook slip out of the slot.



3. Use a screwdriver to loosen 4 screws.

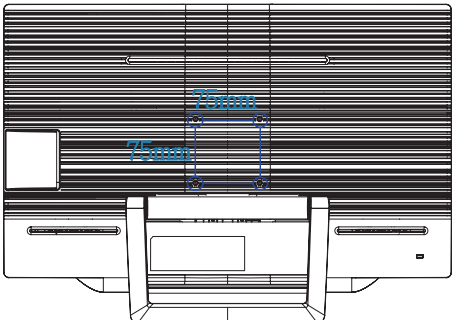


4. Remove the stand from the monitor body.



Note

This monitor accepts a 75mm x 75mm VESA-Compliant mounting interface.



2.4 SMART All-in-One Operation

Philips SMART All-in-One bundles with Android system to use as a stand-along PC. It does not require any PC connections and can be controlled with keyboard and mouse for selection and confirmation.

To enter the Android **Home** screen, press the hotkey on the front bezel, and select Android as the input source.

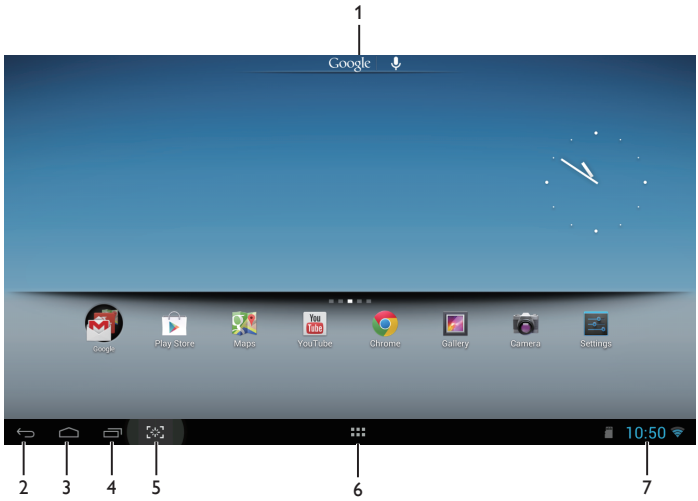
Note

Keyboard and mouse are not bundled.

2.4-1 Home screen

The **Home** screen is composed of five screen panels. By left-clicked and dragging your USB mouse, you can move left or right across the central **Home** screen, and look for more widgets, shortcuts, or other items located on each screen panel.

You can also add shortcuts, widgets or change the desktop wallpaper on each screen panel.



No.	Icon	Descriptions
1	Google	Short cut for Google Search
2		Back to previous page
3		Back to Android Home Screen
4		Display recently used application
5		Snap for screen shot
6		Application Gallery
7	9:07	Notification / Local Time / Settings

2.4-2 Customizing your Home Screen

Adding application icons, shortcuts, or widgets to the home screen as your preference. You can also change the wallpaper.

Add an item to the Home Screen:

1. Left-click on the  icon in the ststem bar to enetr the APPS gallery screen.
2. Select [**APPS**] or [**WIDGETS**].
3. Left-click and hold the item until it enlarged. Drag the item to the place you preferred on the Home Screen.

Move an item on the Home Screen:

1. left-click and hold the item until it enlarged.
2. Drag the item to the place you preferred on the Home Screen.

Remove an item from the Home Screen:

1. Left-click and hold the item until it enlarged. The Trash Can icon displayed.
2. Drag the item to the Trash Can icon to remove the item from the Home Screen.

Change the wallpaper:

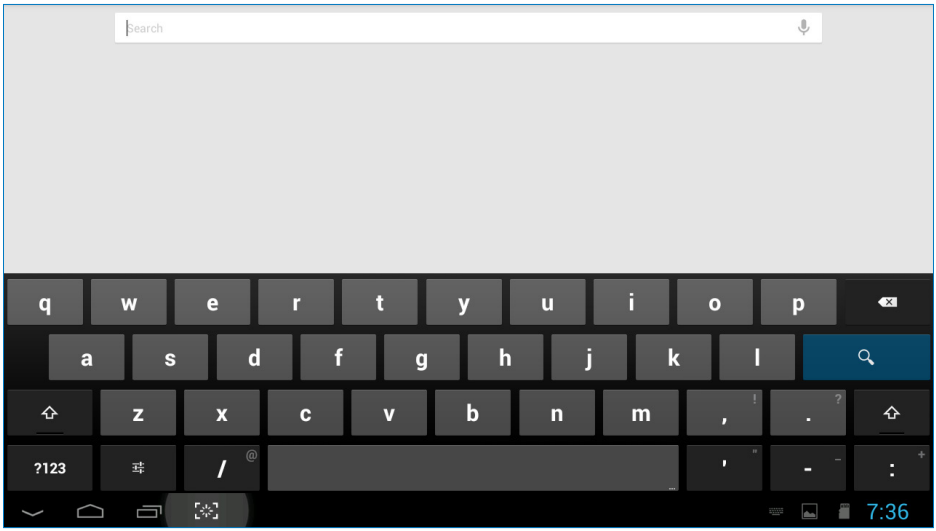
1. Make a long left-click (click and hold) on an empty space on the Home Screen.
2. A [**Choose wallpaper from**] configuration screen will appear.
3. Click one of the wallpaper sources among [**Gallery**], [**Live Wallpapers**], [**Select**], or [**Wallpapers**].
4. In the selected wallpaper source screen, select one and click [**Set wallpaper**] to change the wallpaper. Or right-click to exit the wallpaper source screen and go back to Home screen.
5. Some wallpapers allow changing the wallpaper color, such as [**Magic Smoke**]. If a [**Settings…**] prompt displays on screen, left-click on it, a [**Tap to change**] prompt displays on the top of screen. Left-click on the screen to configure and cycle through the different colors.
6. You can click the  button to go back previous screen without renewing any changed settings.

Note

- All five Home Screen panels share the same background. You cannot set different wallpapers for each of them.

2.4-3 Google Search

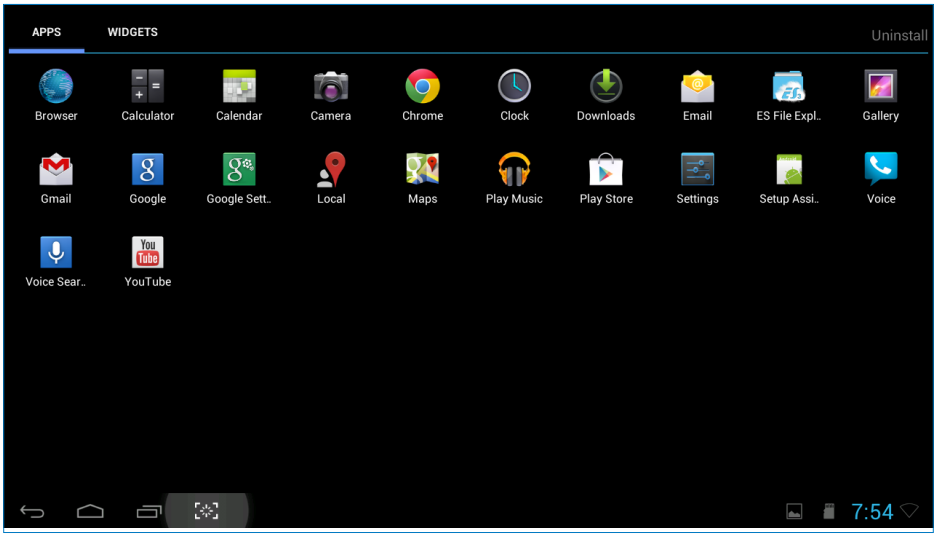
1. Click on the Google icon in the **Home** screen. The on-screen keyboard displayed.



2. Type a keyword or text in the URL box. As you type, the search results that fully or partially match the text being typed appear.
3. Scroll the listed search results and clcik the desired result.
4. The matching application or the browser with matching web links opens.
5. Click the desired link if you want to view a web page.

2.4-4 APPS Gallery

1. Click on the  icon in the system bar to enter the APPS gallery screen.

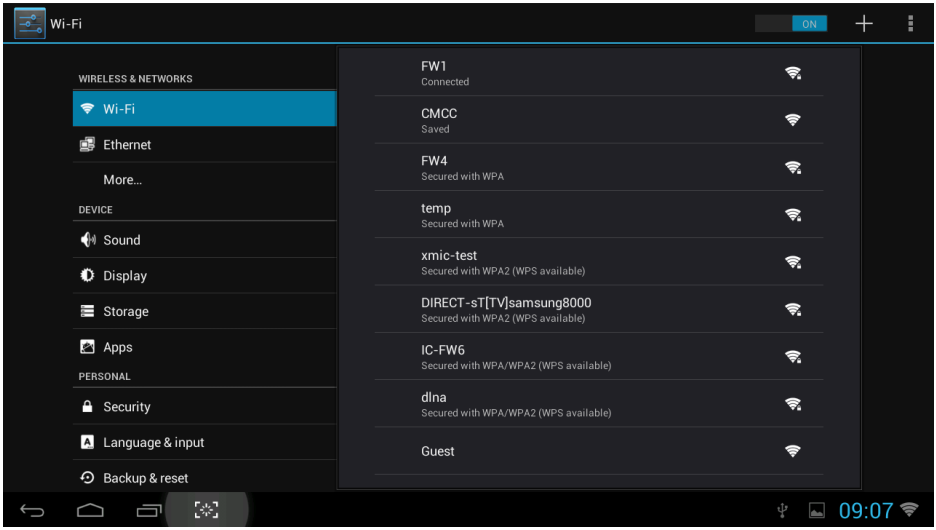


2. Click on the application icon to open it.
3. Click on the  icon to return to the Home Screen, or click on the  icon to return to the previous screen..

2.4-5 Android system settings

Click the icon 

in the central Android **Home** screen.



Main Menu	Sub Menu	Item Description
WIRELESS & NETWORKS	Wi-Fi	Scan and Advanced
	Ethernet	Ethernet configuration
	More	Set up VPN
DEVICE	Sound	Set the volume level.
	Display	Set the wallpaper, sleep timer, and font size for the SMART All-in-One.
	Storage	Display the storage information.
	Apps	Manage the Apps installed.
PERSONAL	Location access	Access to my location and LOCATION SOURCES.
	Security	Disable and set the safety security function.
	Language & input	Select and set the language option.
	Backup & reset	Recover to the factory default settings.
ACCOUNTS	Add account	ADD an account (Corporate/Email/Google)..
SYSTEM	Date & time	Set up the system date and time.
	Accessibility	
	Developer options	The internet data is used after clicking the option
	About	Display the information for the SMART All-in-One.

3. Image Optimization

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.

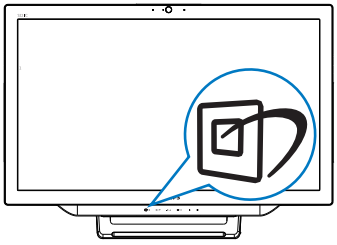
2 Why do I need it?

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?

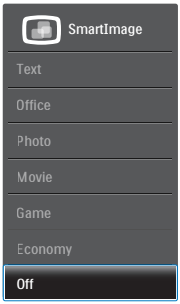
SmartImage is an exclusive, leading edge Philips technology that analyzes the content displayed on your screen. Based on a scenario you select, SmartImage dynamically enhances the contrast, color saturation and sharpness of images to enhance the contents being displayed - all in real time with the press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

3.1 SmartImage



1. Press hotkey to launch the **SmartImage** OSD.
2. Press ▼ or ▲ button to select one of the **SmartImage** settings.
3. The **SmartImage** OSD will remain on screen for 5 seconds, or you can also press button to confirm.
4. When **SmartImage** is enabled, the sRGB scheme is disabled automatically. To use sRGB, you need to disable select {**Off**} for the **SmartImage**.

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



- **Text:** Helps improve reading of text based application like PDF ebooks. By using a special algorithm which increases the contrast and boundary sharpness of text content, the display is optimized for a stress-free reading by adjusting the brightness, contrast and color temperature of the monitor.
- **Office:** Enhances text and dampens brightness to increase readability and reduce eye strain. This mode significantly enhances readability and productivity when you're working with spreadsheets, PDF files, scanned articles or other general office applications.
- **Photo:** This profile combines color saturation, dynamic contrast and sharpness enhancement to display photos and other images with outstanding clarity in vibrant colors - all without artifacts and faded colors.
- **Movie:** Ramped up luminance, deepened color saturation, dynamic contrast and razor sharpness displays every details in darker areas of your videos without color washout in brighter areas maintaining a dynamic natural values for the ultimate video display.

- **Game:** Turn on over drive circuit for best response time, reduce jaggy edges for fast moving objects on screen, enhance contrast ratio for bright and dark scheme, this profile delivers the best gaming experience for gamers.
- **Economy:** Under this profile, brightness, contrast are adjusted and backlighting finetuned for just right display of everyday office applications and lower power consumption.
- **Off:** No optimization by SmartImage.

4. Technical Specifications

Picture/Display	
LCD Panel Type	TFT-LCD
Backlight Type	WLED system
Panel Size	21.5" / 54.6 cm
Effective Viewing Area	476.64 (H) x 268.11 (V) mm
Aspect Ratio	16:9
Optimum Resolution	Android:1280x720 PC:1920x1080 @ 60Hz
Response Time (Typ.)	5 ms
SmartResponse	2 ms
Brightness	250 cd/m²
Viewing Angle	170° (H) / 160° (V), @ C/R > 10
Picture Enhancement	SmartImage
Display Colors	16.7 M
Operation system	
Android	Android 4.1
Processor	Dual-core, ARM-based Amlogic, 1.5GHz
Sound	
Built-in Audio	2.0W x 2
Video/Audio Playback	
Video Format	MPEG4, H.264, WMV
Audio Format	MPEG1, MPEG2, MP3, WMA, WAV, Ogg Vorbis, AAC
Photo Format	JPEG, BMP, PNG, GIF
Storage Media	
Bulit-in memory capacity	1GB DDR3 , 8GB EMMC Flash
External memory expansion	Optional external SDHC card, or USB flash drive upto 64GB
Connectivity	
Preloaded Applications	Google Play, Youtube, Browser, Email, Gallery, Music, Camera, Setting
USB 2.0	4x USB Downstream (Type-A) 1x USB Upstream (Type-B) 1x Micro-USB (Mini-A)
Signal Input	VGA, HDMI, RJ-45
SD/MMC Card	SDHC Card Slot
Wireless connections	Wi-Fi (Built-in), Wireless LAN 802.11b/g/n
Audio In/Out	PC Audio-in, Headphone Jack

Convenience	
Built-in Webcam	1.0 megapixel camera with microphone and LED indicator
User Convenience	/◀ /▼ /▲ /OK
Preloaded Applications	Google Play, Youtube, Brower, Email, Gallery, Music, Camera, Setting
OSD Languages	English, Deutsch, Español, Ελληνική, Français, Italiano, Maryar, Nederlands, Português, Português do Brazil, Polski, Русский, Svenska, Suomi, Türkçe, Čeština, Українська, 简体中文 , 繁体中文 , 日本語 , 한국어
Other Convenience	Kensington lock, VESA mount (75 x 75 mm)
Plug & Play Compatibility	DDC/CI, Mac OS X, sRGB, Windows 7, Windows 8
LAN Speed	10/100Mbps
RF Module M/N	WSDB-673GN
Stand	
Tilt	12° ~ 54°
Power	
On Mode	22.77W (typ), 43.56W(max)
Monitor Standby Mode	0.65W(typ.)
Android Standby Mode	6.3W(typ.)
Off Mode	0.3W(typ.)
Power LED Indicator	Operation - White, Standby mode- White (blinking)
Power Supply	Input: 100~240VAC, 50~60Hz Output: DC 19V
Dimensions	
Product with Stand	524(W) x 373(H) x 78(D) mm
Product with Packaging	580(W) x 446(H) x 137(D) mm
Weight	
Product with Stand	3.51KG
Product with Packaging	5.02KG
Operating conditions	
Temperature Range (operation)	0°C ~ 40°C
Temperature Range (storage)	-20°C ~ 60°C
Relative Humidity	20% ~ 80%
MTBF	30,000 hours
Sustainability	
Environmental and Energy	RoHS, China RoHS, Lead-free, Mercury-free, EPEAT
Recyclable Packaging Material	100 %
Compliance and standards	
Regulatory Approvals	TCO Certified, Energy Star Certified, EU EEI, Semko, CU-EAC, CCC,CECP, C-tick, SASO, ETL, FCC
Cabinet	
Color	White
Finish	Glossy

4.1 Resolution & Preset PC Modes

1 Maximum Resolution
1920x1080@60Hz (analog input)
1920x1080@60Hz (digital input)

2 Recommended Resolution
1920x1080@60Hz (digital input)

H. freq (kHz)	Resolution	V. freq (Hz)
31.47	720x400	70.09
31.47	640x480	59.94
35.00	640x480	66.67
37.86	640x480	72.81
37.50	640x480	75.00
37.88	800x600	60.32
46.88	800x600	75.00
48.36	1024x768	60.00
60.02	1024x768	75.03
63.89	1280x1024	60.02
79.98	1280x1024	75.03
55.94	1440x900	59.89
70.64	1440x900	74.98
65.29	1680x1050	59.95
67.50	1920x1080	60.00

Note
Please notice that your display works best at native resolution of 1920x1080@60Hz. For best display quality, please follow this resolution recommendation.

5. Power Management

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

Power Management Definition					
VESA Mode	Video	H-sync	V-sync	Power Used	LED Color
Active	ON	Yes	Yes	22.77W (typ) 43.56W(max)	White
Sleep	OFF	No	No	0.3 W (typ.)	White (blink)
Switch Off	OFF	-	-	0.3 W (typ.)	OFF

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

- Native resolution: 1920x1080
- Contrast: 50%
- Brightness: 250 nits
- Color temperature: 6500k with full white pattern

Note

This data is subject to change without notice.

6. Regulatory Information

TCO Certified

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.

This product has been verified to meet all the criteria in TCO Certified, including:

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 – protection 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

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

- EN60950-1:2006+A11:2009+A1:20 10+A12:2011 (Safety requirement of Information Technology Equipment).
- EN55022:2010 (Radio Disturbance requirement of Information Technology Equipment).
- EN55024:2010 (Immunity requirement of Information Technology Equipment).
- EN61000-3-2:2006 +A1:2009+A2:2009 (Limits for Harmonic Current Emission).
- EN61000-3-3:2008 (Limitation of Voltage Fluctuation and Flicker) following provisions of directives applicable.
- 2006/95/EC (Low Voltage Directive).
- 2004/108/EC (EMC Directive).
- 2009/125/EC (ErP Directive, EC No. 1275/2008 Implementing Directive for Standby and Off mode power consumption).

and is produced by a manufacturing organization on ISO9000 level.

- ISO9241-307:2008 (Ergonomic requirement, Analysis and compliance test methods for electronic visual displays).
- TCO certified (Requirement for Environment Labeling of Ergonomics, Energy, Ecology and Emission, TCO: Swedish Confederation of Professional Employees) for TCO versions.

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 auxlimites des appareils numériques de class B,aux termes de l'article 15 Des règles de la FCC. Ces limites sont conçues de façon à fourir 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 nuisibles aux communications radio.

Cependant, rien ne peut garantir l'absence d'interférences dans le cadre d'une installation particulière. Si cet appareil est la cause d'interférences nuisibles pour la réception des signaux de radio ou de télévision, ce qui peut être décelé en fermant l'équipement, puis en le remettant en fonction, l'utilisateur pourrait essayer de corriger la situation en prenant les mesures suivantes:

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre l'équipement et le récepteur.
- Brancher l'équipement sur un autre circuit que celui utilisé par le récepteur.
- Demander l'aide du marchand ou d'un technicien chevronné en radio/télévision.

Toutes modifications n'ayant pas reçu l'approbation des services compétents en matière de conformité est susceptible d'interdire à l'utilisateur l'usage du présent équipement.

N'utiliser que des câbles RF armés pour les connections avec des ordinateurs ou périphériques.

CET APPAREIL NUMERIQUE DE LA CLASSE B RESPECTE TOUTES LES EXIGENCES DU REGLEMENT SUR LE MATERIEL BROUILLEUR DU CANADA.

CAN ICES-3 (B)/ NMB-3 (B)

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 (radius of protection up to 30 meters). The user of the device is obliged to take all steps necessary to remove sources of interference to telecommunication or other devices.

Pokud není na typovém štítku počítače uvedeno, že spadá do do třídy A podle EN 55022, spadá automaticky do třídy B podle EN 55022. Pro zařízení zařazená do třídy A (chranné pásmo 30m) podle EN 55022 platí následující. Dojde-li k rušení telekomunikačních nebo jiných zařízení je uživatel povinnen provést taková opatřgní, aby rušení odstranil.

Polish Center for Testing and Certification 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

Urządzenie powinno być zasilane z gniazda z przyłączonym obwodem ochronnym (gniazdo z kołkiem). Współpracujące ze sobą urządzenia (komputer, monitor, drukarka) powinny być zasilane z tego samego źródła.

Instalacja elektryczna pomieszczenia powinna zawierać w przewodzie fazowym rezerwową ochronę przed zwarciami, w postaci bezpiecznika o wartości znamionowej nie większej niż 16A (amperów).

W celu całkowitego wyłączenia urządzenia z sieci zasilania, należy wyjąć wtyczkę kabla zasilającego z gniazdka, które powinno znajdować się w pobliżu urządzenia i być łatwo dostępne.

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

Pozostałe instrukcje bezpieczeństwa

- Nie należy używać wtyczek adapterowych lub usuwać kołka obwodu ochronnego z wtyczki. Jeżeli konieczne jest użycie przedłużacza to należy użyć przedłużacza 3-żyłowego z prawidłowo połączonym przewodem ochronnym.
- System komputerowy należy zabezpieczyć przed nagłymi, chwilowymi wzrostami lub spadkami napięcia, używając eliminatora przepięć, urządzenia dopasowującego lub bezzakłóceniowego źródła zasilania.
- Należy upewnić się, aby nic nie leżało na kablach systemu komputerowego, oraz aby kable nie były umieszczone w miejscu, gdzie można byłoby na nie nadeptywać lub potykać się o nie.
- Nie należy rozlewać napojów ani innych płynów na system komputerowy.
- Nie należy wpychać żadnych przedmiotów do otworów systemu komputerowego, gdyż może to spowodować pożar lub porażenie prądem, poprzez zwarcie elementów wewnętrznych.
- System komputerowy powinien znajdować się z dala od grzejników i źródeł ciepła. Ponadto, nie należy blokować otworów wentylacyjnych. Należy unikać kładzenia luźnych papierów pod komputer oraz umieszczania komputera w ciasnym miejscu bez możliwości cyrkulacji powietrza wokół niego.

North Europe (Nordic Countries) Information

Placering/Ventilation
VARNING:
FÖRSÄKRA DIG OM ATT HUVUDBRYTARE OCH UTTAG ÄR LÄTÅTKOMLIGA, NÄR DU STÄLLER DIN UTRUSTNING PÅPLATS.

Placering/Ventilation
ADVARSEL:
SØRG VED PLACERINGEN FOR, AT NETLEDNINGENS STIK OG STIKKONTAKT ER NEMT TILGÆNGELIGE.

Paikka/Ilmankierto
VAROITUS:
SIJOITA LAITE SITEN, ETTÄ VERKKOJOHTO VOIDAAN TARVITTAESSA HELPOSTI IRROTTAA PISTORASIASTA.

Plassering/Ventilasjon
ADVARSEL:
NÅR DETTE UTSTYRET PLASSERES, MÅ DU PASSE PÅ AT KONTAKTENE FOR STØMTILFØRSEL ER LETTE Å NÅ.

BSMI Notice (Taiwan Only)

符合乙類資訊產品之標準

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 LEICHT ZUGÄNGLICH SIND.

EU Energy Label



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.

中国电子信息产品污染控制标识要求（中国 RoHS 法规标示要求）产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
外壳	O	O	O	O	O	O
液晶显示屏 / 灯管	X	O	O	O	O	O
电路板组件 *	X	O	O	O	O	O
电源适配线	X	O	O	O	O	O
电源线 / 连接线	X	O	O	O	O	O

*: 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。

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在《电子信息产品中有毒有害物质的限量要求标准》规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出《电子信息产品中有毒有害物质的限量要求标准》规定的限量要求；但是上表中打“X”的部件，符合欧盟 RoHS 法规要求（属于豁免的部分）。



环保使用期限

此标识指期限（十年），电子信息产品中含有的有毒有害物质或元素在正常使用的条件下不会发生外泄或突变，电子信息产品用户使用该电子信息产品不会对环境造成严重污染或对其人身、财产造成严重损害的期限。

中国能源效率标识

根据中国大陆《微型计算机能源效率标识实施规则》，本计算机符合以下要求：

典型能源效率 (kWh)	≤ 98.0
能效等级	1 级
能效标准	GB 28380-2012

详细有关信息请查阅中国能效标示网：

http://www.energylabel.gov.cn/

《废弃电器电子产品回收处理管理条例》提示性说明

为了更好地关爱及保护地球，当用户不再需要此产品或产品寿命终止时，请遵守国家废弃电器电子产品回收处理相关法律法规，将其交给当地具有国家认可的回收处理资质的厂商进行回收处理。

RF WARNING STATEMENT

EUROPE

EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN60950-1
  Safety of Information Technology Equipment
- EN 62311
  Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz-300 GHz)
- EN 300 328 (For 802.11b/g/n)
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
- EN 301 893 (For 802.11a)
  Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive
- EN 301 489-17
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment
- EN 301 489-1
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

CE

- When entering sleep mode (backlight off), the system will shut down after a week (typical) of time.

TAIWAN

低功率電波輻射性電機管理辦法：

- 第十二條
  經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
- 第十四條
  功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
  前項合法通信，指依電信法規定作業之無線電通信。
  低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- 在 5.25-5.35 秭赫頻帶內操作之無線資訊傳輸設備，限於室內使用。

USA

Federal Communication Commission Interference Statement

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.

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5GHz products are restricted to indoor usage only.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

CANADA

Industry Canada statement:

This device complies with RSS-210 of the Industry Canada 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.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Caution:

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Avertissement:

(i) les dispositifs fonctionnant dans la bande 5 150-5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

MEXICO

Cofetel notice is: (Mexico COFETEL aviso:)

"La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

BRAZIL

ANATEL RF STATEMENT

Per Article 6 of Resolution 506, equipment of restricted radiation must carry the following statement in a visible location

"Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário."

ANATEL BODY SAR STATEMENT

"Este produto atende aos requisitos técnicos aplicados, incluindo os limites de exposição da Taxa de Absorção Específica referente a campos elétricos, magnéticos e eletromagnéticos de radiofrequência, de acordo com as resoluções n°303/2002 e 533/2009. Este produto atende às diretrizes de exposição à RF na posição normal de uso a pelo menos X centímetros longe do corpo, tendo sido os ensaios de SAR para corpo realizado a X cm de acordo com o informativo de recomendação apresentado no manual do fabricante."

KOREAN

해당 무선설비는 운용 중 전파혼신 가능성이 있음

해당 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음

이 기기는 가정용(B 급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든지역에서 사용할 수 있습니다.

JAPAN

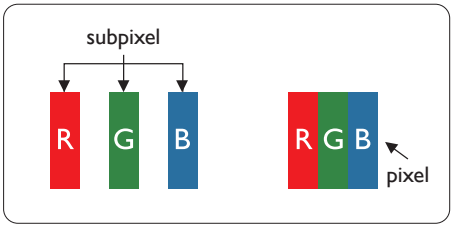
この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場の製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）並びにアマチュア無線局（免許を要する無線局）が運用されています。
1 この機器を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局並びにアマチュア無線局が運用されていないことを確認して下さい。
2 万一、この機器から移動体識別用の構内無線局に対して有害な電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の発射を停止した上、下記連絡先にご連絡頂き、混信回避のための処置等（例えば、パーティションの設置など）についてご相談して下さい。
3 その他、この機器から移動体識別用の特定小電力無線局あるいはアマチュア無線局に対して有害な電波干渉の事例が発生した場合など何かお困りのことが起きたときは、次の連絡先へお問い合わせ下さい。

この装置は、クラスB 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。
ＶＣＣＩ－Ｂ

7. Customer care and warranty

7.1 Philips' Flat Panel Monitors Pixel Defect Policy

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



Pixels and Sub pixels

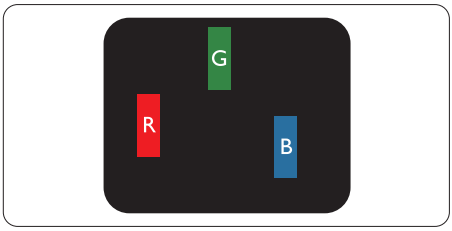
A pixel, or picture element, is composed of three sub pixels in the primary colors of red, green and blue. Many pixels together form an image. When all sub pixels of a pixel are lit, the three colored sub pixels together appear as a single white pixel. When all are dark, the three colored sub pixels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

Types of Pixel Defects

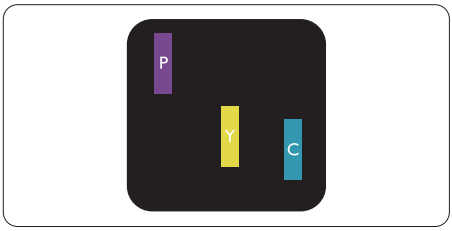
Pixel and sub pixel defects appear on the screen in different ways. There are two categories of pixel defects and several types of sub pixel defects within each category.

Bright Dot Defects

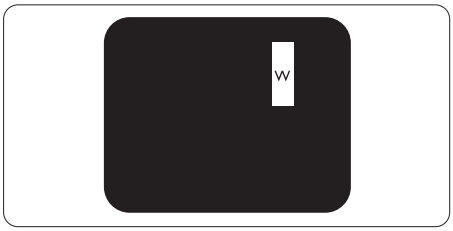
Bright dot defects appear as pixels or sub pixels that are always lit or 'on'. That is, a bright dot is a sub-pixel that stands out on the screen when the monitor displays a dark pattern. There are the types of bright dot defects.



One lit red, green or blue sub pixel.



Two adjacent lit sub pixels:
- Red + Blue = Purple
- Red + Green = Yellow
- Green + Blue = Cyan (Light Blue)



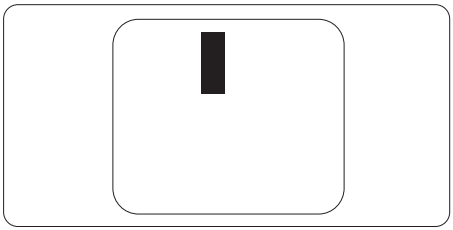
Three adjacent lit sub pixels (one white pixel).

Note

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

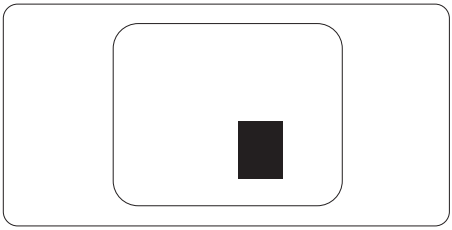
Black Dot Defects

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



Proximity of Pixel Defects

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



Pixel Defect Tolerances

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

BRIGHT DOT DEFECTS	ACCEPTABLE LEVEL
1 lit subpixel	3
2 adjacent lit subpixels	1
3 adjacent lit subpixels (one white pixel)	0
Distance between two bright dot defects*	>15mm
Total bright dot defects of all types	3

BLACK DOT DEFECTS	ACCEPTABLE LEVEL
1 dark subpixel	5 or fewer
2 adjacent dark subpixels	2 or fewer
3 adjacent dark subpixels	0
Distance between two black dot defects*	>15mm
Total black dot defects of all types	5 or fewer

TOTAL DOT DEFECTS	ACCEPTABLE LEVEL
Total bright or black dot defects of all types	5 or fewer

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.

7.2 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:

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

Contact Information for CENTRAL AND EASTERN EUROPE region:

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

Contact Information for China:

Country	Call Center	Consumer Care Number
China	PCCW Limited	4008 800 008

Contact Information for NORTH AMERICA:

Country	Call Center	Consumer Care Number
U.S.A.	EPI - e-center	(877) 835-1838
Canada	EPI - e-center	(800) 479-6696

Contact Information for APMEA region:

Country	ASP	Consumer Care Number	Opening Hours
Australia	AGOS NETWORK PTY LTD	1300 360 386	Mon.~Fri. 9:00am-5:30pm
New Zealand	Visual Group Ltd.	0800 657447	Mon.~Fri. 8:30am-5:30pm
Hong Kong Macau	Company: Smart Pixels Technology Ltd.	Hong Kong: Tel: +852 2619 9639 Macau: Tel: (853)-0800-987	Mon.~Fri. 9:00am-6:00pm Sat. 9:00am-1:00pm
India	REDINGTON INDIA LTD	Tel: 1 800 425 6396 SMS: PHILIPS to 56677	Mon.~Fri. 9:00am-5:30pm
Indonesia	PT. CORMIC SERVISINDO PERKASA	+62-21-4080-9086 (Customer Hotline) +62-8888-01-9086 (Customer Hotline)	Mon.~Thu. 08:30-12:00; 13:00-17:30 Fri. 08:30-11:30; 13:00-17:30
Korea	Alphascan Displays, Inc	1661-5003	Mon.~Fri. 9:00am-5:30pm Sat. 9:00am-1:00pm
Malaysia	R-Logic Sdn Bhd	+603 5102 3336	Mon.~Fri. 8:15am-5:00pm Sat. 8:30am-12:30am
Pakistan	TVONICS Pakistan	+92-213-6030100	Sun.~Thu. 10:00am-6:00pm
Singapore	Philips Singapore Pte Ltd (Philips Consumer Care Center)	(65) 6882 3966	Mon.~Fri. 9:00am-6:00pm Sat. 9:00am-1:00pm
Taiwan	FETEC.CO	0800-231-099	Mon.~Fri. 09:00 - 18:00
Thailand	Axis Computer System Co., Ltd.	(662) 934-5498	Mon.~Fri. 08:30am~05:30pm
South Africa	Computer Repair Technologies	011 262 3586	Mon.~ Fri. 08:00am~05:00pm
Israel	Eastronics LTD	1-800-567000	Sun.~Thu. 08:00-18:00
Vietnam	FPT Service Informatic Company Ltd. - Ho Chi Minh City Branch	+84 8 38248007 Ho Chi Minh City +84 5113.562666 Danang City +84 5113.562666 Can tho Province	Mon.~Fri. 8:00-12:00, 13:30-17:30 Sat. 8:00-12:00
Philippines	EA Global Supply Chain Solutions, Inc.	(02) 655-7777; 6359456	Mon.~Fri. 8:30am~5:30pm
Armenia Azerbaijan Georgia Kyrgyzstan Tajikistan	Firebird service centre	+97 14 8837911	Sun.~Thu. 09:00 - 18:00
Uzbekistan	Soniko Plus Private Enterprise Ltd	+99871 2784650	Mon.~Fri. 09:00 - 18:00
Turkmenistan	Technostar Service Centre	+(99312) 460733, 460957	Mon.~Fri. 09:00 - 18:00
Japan	フィリップスモニター・サポートセンター	0120-060-530	Mon.~Fri. 10:00 - 17:00

8. Troubleshooting & FAQs

8.1 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

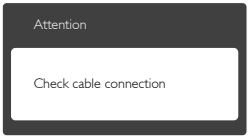
No Picture (Power LED not lit)

- 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



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

AUTO button doesn't function

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

Note

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

Visible signs of smoke or sparks

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

2 Imaging Problems

Image is not centered

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

Image vibrates on the screen

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

Vertical flicker appears



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

Horizontal flicker appears



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

Image appears blurred, indistinct or too dark

- Adjust the contrast and brightness on On-Screen Display.

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

- Uninterrupted display of still or static images over an extended period may cause "burn in", also known as "after-imaging " or "ghost imaging", on your screen. "Burn-in", "after-imaging", or "ghost imaging" is a well-known phenomenon in LCD panel technology. In most cases, the "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 SMART All-in-One 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.

8.2 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: 1920x1080@60Hz.

- 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 1920x1080 pixels.
- Open 'Advanced Properties' and set the Refresh Rate to 60Hz, then click OK.
- Restart your computer and repeat step 2 and 3 to verify that your PC is set at 1920x1080@60Hz.
- Shut down your computer, disconnect your old monitor and reconnect your Philips SMART All-in-One.

- Turn on your monitor and then turn on your PC.

Q2: What is the recommended refresh rate for SMART All-in-One?

Ans.: Recommended refresh rate in SMART All-in-One is 60Hz, In case of any disturbance on screen, you can set it up to 75Hz 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; With settings in the 6500K range the panel appears "warm, with a red-white color tone", while a 9300K temperature yields "cool, blue-white toning".
  2. sRGB; this is a standard setting for ensuring correct exchange of colors between different device (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 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 SMART All-in-One to any PC, workstation or Mac?

Ans.: Yes. All Philips SMART All-in-One 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 SMART All-in-One Plug-and- Play?

Ans.: Yes, the monitors are Plug-and-Play compatible with Windows 7/Vista/XP/ NT, Mac OSX, Linux

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 monitor unattended.
Always activate a periodic screen refresh application if your SMART All-in-One 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 SMART All-in-One works best at its native resolution of 1920x1080@60Hz. For best display, please use this resolution.

Q13: What is the recommended refresh rate for SMART All-in-One?

Ans.: Recommended refresh rate in SMART All-in-One 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.

8.3 SMART All-in-One FAQs

Q1: Can I use it as a touch display?

Ans.: No, this is not a touch display. You need to use it with mouse and keyboard to control this SMART All-in-One.

Q2: Do I have to use any special Keyboard or mouse?

Ans.: General keyboard and mouse can be utilized on this Android All in One. Some special keys may not function as intended if the keyboard is intended for different operating system.

Q3: How can I download the Apps?

Ans.: You can download APPS from dedicated Google Play store. A preset Icon on the

desktop is already configured to take you there with one click of the mouse.

Q4: How can I connect to Internet when it's on the SMART All-in-One mode?

Ans.: You can connect to Internet with built in Ethernet or WiFi.

Q5: Can I change my built in Android OS to Windows or Linux?

Ans.: No, you cannot replace the built in Android OS

Q6: How can I use it as a multi-OS display?

Ans.: This SMART All-in-One is powered by built-in Android system and therefore is a stand-alone product on its own without any additional requirement. Additionally, it is also equipped with a standard VGA / HDMI connector. This enables it to also operate as a standard desktop monitor, while connected your standard notebook or desktop computer. Your PC may have OS of your choice. You can now "switch" between its built-in Android system and external PC system as you wish.

Q7: Can I upgrade/ update the built in Android system?

Ans.: Yes, you can do that provided an official update is made available. Please contact the technical personnel to achieve system upgrade/update accuracy.

Q8: Can I rotate my display?

Ans.: No, you cannot rotate your display. Its default and only mode is landscape mode

Q9: Can I use Facebook?

Ans.: please try to download Facebook via Google play. If can't, suggest to link facebook website with browser.



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