

# SPC220NC - SPC225NC

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User manual

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**PHILIPS**

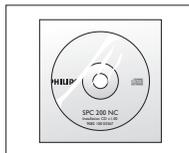


## What's in the box?

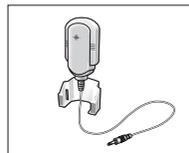
Please check that the following items are packed in the Philips SPC220NC/SPC225NC box. They are provided to help you set up and use your Philips SPC220NC/SPC225NC.



*Philips SPC220NC/  
SPC225NC  
WebCam*



*Installation CD-ROM  
including manual*

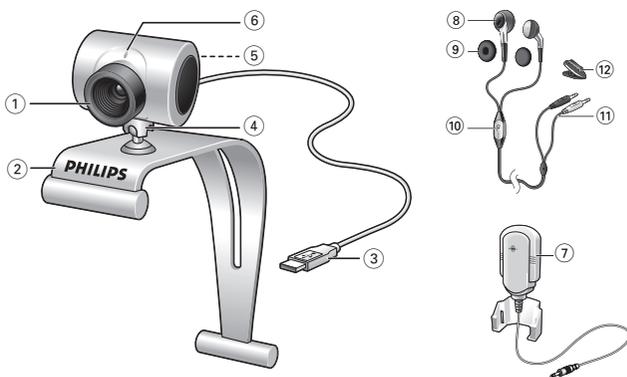


*Microphone  
(SPC220NC only)*



*Headset with earphones,  
in-cord microphone, foam  
pads and shirt clip  
(SPC225NC only)*

# Legend of functions



- 1 Focus ring**  
For adjusting the focus of the image manually.
- 2 Clamp with rubber rims**  
For attaching the WebCam to your PC monitor or laptop screen.
- 3 USB connector**  
For connecting the WebCam to the USB port of the laptop or desktop PC.  
The WebCam will derive its power from the laptop or desktop PC when a USB connection is made.
- 4 Rotating foot**  
For manually changing the vertical angle of the WebCam.
- 5 Snapshot button**  
Enables you to take photos without using your mouse.
- 6 Power LED**  
Lights up red when the WebCam is in use.
- 7 External microphone** (*SPC220NC only*)  
For adding voice and sound when video chatting and video recording.  
**Headset** (*SPC225NC only*) **with:**
- 8 Earphones**  
For listening to your meeting partner during video calling.
- 9 Foam pads**  
Supply comfort for your ears when video chatting.
- 10 In-cord microphone**  
For talking to your meeting partner during video calling.
- 11 Audio cable** (*SPC225NC only*)
  - Grey headphone plug (🎧) - for connecting to the headphone socket of the pc sound card.
  - White microphone plug (🎤) - for connecting to the microphone or green socket of the pc sound card.
- 12 Shirt clip**  
For attaching the audio cable to your shirt.

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# Welcome

The Philips SPC220NC/SPC225NC WebCam you have just purchased is manufactured to the highest standards and will give you years of trouble-free use. Brilliant images and blazing colors, that's what you get with the SPC220NC/SPC225NC WebCam.

After installation, the new WebCam can be used for all sorts of applications, such as:

- **Video:** use the Philips SPC220NC/SPC225NC WebCam for video chatting and video calling. The WebCam works with Skype, Windows® Live Messenger, Yahoo! Messenger, AOL Messenger, QQ and other free instant messaging and VoIP (Voice over Internet Protocol) services;
- **Video e-mail / Video capture:** create your own video presentations, video mail, product demonstrations, training videos, Internet clips etc.;
- **Snapshot images:** use images in presentations, create postcards, or send them via e-mail.
- **Editing and special effects:** after recording the images you want with the Philips SPC220NC/SPC225NC WebCam, the images can be easily edited using image or video editing programs.

The following sections in this manual give a step-by-step description of the installation process and explain how to use the Philips SPC220NC/SPC225NC WebCam.

Please read the following instructions carefully, and retain them for future reference. It may be helpful to have the instructions for use for the PC at hand for reference.

## Safety precautions

Observe the following guidelines to ensure that the WebCam will operate safely and to prevent defects.

- Do not use your WebCam in environments outside the following range: temperature: 0°C to 40°C, relative humidity: 45% ~ 85%.
- Do not use or store your WebCam in/under:
  - direct sunlight exposure;
  - very humid and dusty environment;
  - near any kind of heat sources.
- If your WebCam gets wet, dry it with soft cloth as soon as possible.
- If the lens is dirty, Do NOT touch the lens with your fingers.
- Clean the outside of the WebCam with a soft cloth.
- Do NOT use cleaning fluids based on alcohol, methylated spirit, ammonia, etc.
- Do NOT attempt to disassemble or repair your WebCam by yourself. Do not open the WebCam. In the event of technical difficulties return it to your Philips retailer.
- Do NOT use your WebCam in the water.
- Protect the WebCam from oil, vapour, steam, moisture, and dust.
- Never point the WebCam lens at the sun.

## Copyright

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# Installation

## Installing the WebCam software

The software supplied only works on PCs with the operating systems Microsoft® Windows® 98SE, ME, 2000, XP and Vista.

### Notes!

- Unplug all your USB devices (except USB keyboard and USB mouse) before you start.
- Do not plug in your WebCam yet. Run the Installation CD-ROM first.
- Have your Windows® CD-ROM at hand.



### 1 Place the installation CD-ROM in your PC's / laptop's CD-ROM / DVD drive.

> After a couple of seconds the 'Language selection' screen appears.

### Note!

If the 'Language selection' screen does not appear automatically, open the Microsoft® Windows® Explorer and double click on the 'Set-up.exe' icon in the CD-ROM directory.



### 2 Select your language.

> Installation continues automatically.



> The 'Welcome' screen appears.

### 3 Click 'Next' to continue.



> The 'Manual' screen appears.

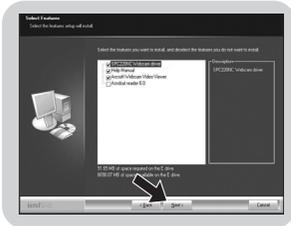
### 4 Select the first option if you wish to read the user manual before continuing installation. You can print out the manual so you will have it at hand during the rest of the installation process.

After you read or printed the user manual, continue installation by selecting the second option.

**Or:**

Select the second option if you wish to continue installation.

Click **'Next'** to continue.



> The 'Installation' screen appears. The items that can be installed are shown on the left side of the screen. An explanation of each item is given on the right side.

All items are already selected for installation.

**5** Click the **'Next'** button if you wish to install all items.

**Or:**

If there are certain items you do not wish to install, check the boxes before these items.

Select at least 'SPC220NC WebCam Driver' and 'WebCam Video Viewer' for SPC220NC WebCam as well as for SPC225NC WebCam (software is the same for both WebCams). Click the **'Next'** button.

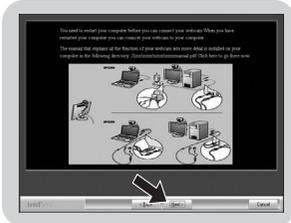
> The following software license agreement appears.

**6** Click on **'Yes'** to continue the installation.



> The following screen appears when the installation was successful.

**7** Select the user manual.



**Or:**

Click **'Next'** to continue.

> The 'Reboot' screen appears.

**8** Select **'Yes'** to restart your PC / laptop, then click **'Finish'**.

> The WebCam Video Viewer desktop shortcut  will be installed after installation.

> Via the WebCam Video Viewer you have access to all camera-related software. See 'Operating the WebCam'.



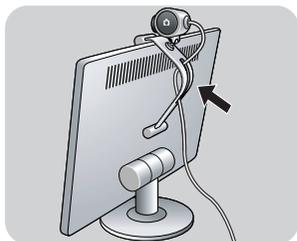
**9** You can now connect your WebCam.

# Installation

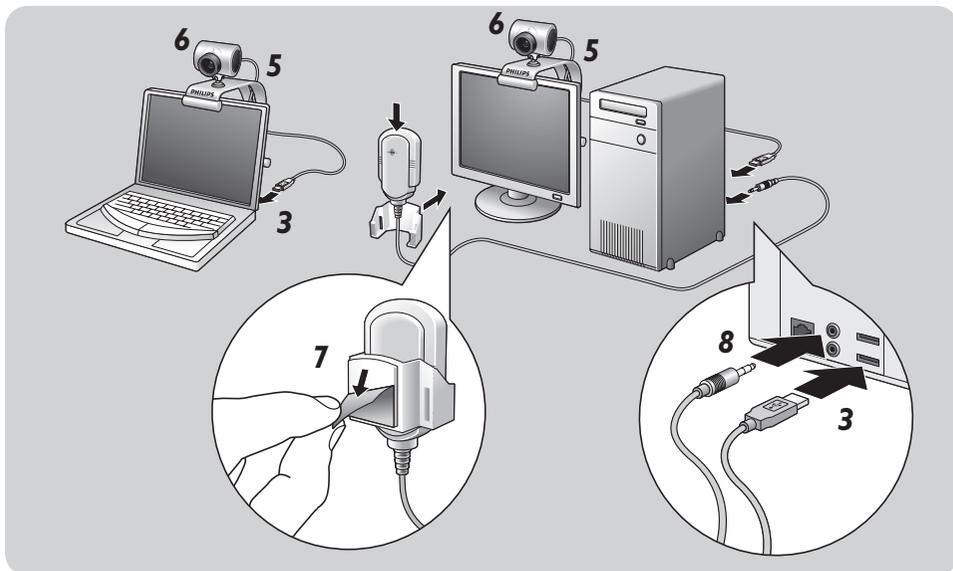
## Connecting the WebCam to your PC / laptop

### General

- 1 Be sure to run the installation CD first, before connecting the WebCam to the PC / laptop.
- 2 Turn on the PC / laptop.
- 3 Connect the USB connector of the USB cable to the USB port of the PC / laptop.  
 > The WebCam will now derive its power from the PC / laptop.
- 4 Aim the webcam as required.
- 5 Push the USB cable into the cable management slot.
- 6 Use the clamp and the two rubber rims to attach the WebCam to your PC monitor or laptop screen.

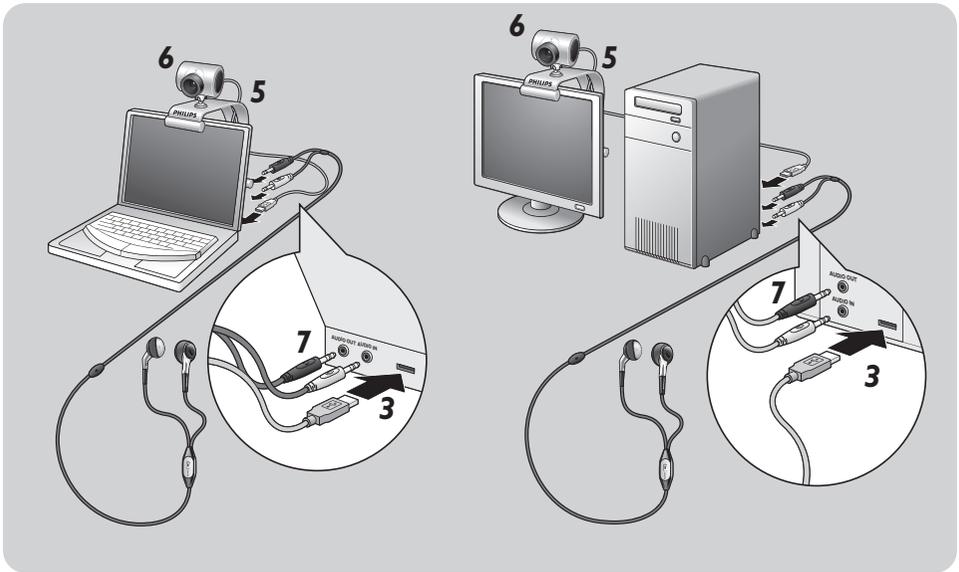


### SPC220NC WebCam



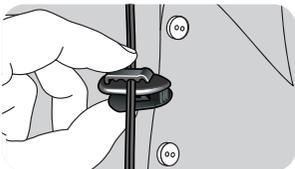
- 7 Peel off the protective foil on the rear of the microphone (SPC220NC only) and attach the microphone to the PC monitor or laptop screen.
- 8 Connect the microphone plug to the microphone or green socket of the sound card.

## SPC225NC WebCam



**7** Connect the headset audio cable (*SPC225NC only*) to the sound card of your PC / laptop.

- Connect the grey headphone plug (🎧) to the headphone socket of the PC sound card.
- Connect the white microphone plug (🎤) to the microphone or green socket of the sound card.
- If desired, attach the foam pads to the earphones for more listening comfort.



- If desired, click the audio cable into the shirt clip and attach the clip to your shirt.

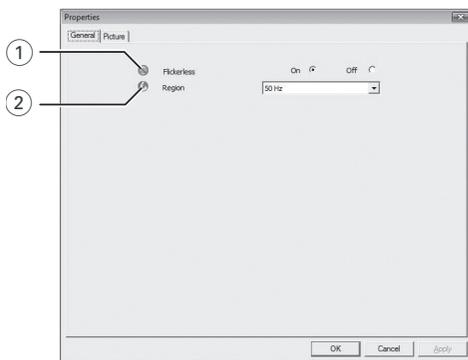
# WebCam settings

The Philips SPC220NC/SPC225NC video properties can be changed:

- from within an application;
- by clicking the WebCam Video Viewer icon  in the Windows taskbar; bottom right of your screen, or
- by selecting 'Advance' in the WebCam Video Viewer. See 'Operating the WebCam.'

Most applications can show a 'live preview' video image on your monitor. Always use this option to see the effect of changed settings on your screen.

## General settings



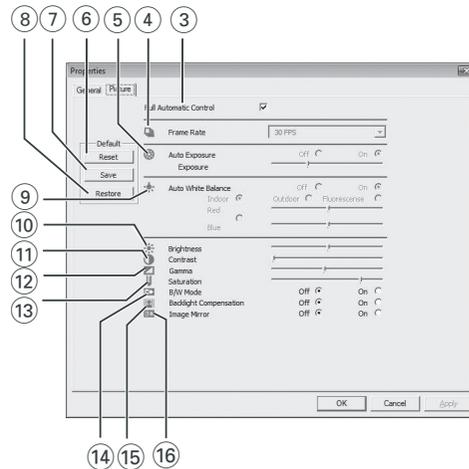
### ① Flickerless

The Flickerless option should only be used under flickering light conditions (e.g. fluorescent or neon lamps) to prevent flickering or strangely colored video images. If this option is used under normal lighting conditions the video image may be overexposed.

### ② Region

If you are using the Philips SPC220NC/SPC225NC in Europe, select '50 Hz' and if you are using the Philips SPC220NC/SPC225NC in North America, select '60 Hz'. For Asia this setting is dependent on the local mains output. E.g. for China, select '50 Hz' and for Taiwan, select '60 Hz'. For Japan the setting is region dependent. Please check your local mains output to find the correct 'Region' setting.

## Picture settings



### ③ Full automatic control: on/off

This full automatic control mode provides a very easy way to get the best out of your Philips SPC220NC/SPC225NC WebCam.

Or you can choose to have maximum manual control over the WebCam settings by switching the full automatic control mode off. Full automatic control 'on' is the preferred setting for normal use.

Techniques active within full automatic control mode are:

- *Automatic exposure control* and automatic white balance control, to provide the best video source signal possible;
- *Automatic frame rate selection* for improved WebCam sensitivity in low light conditions.

### ④ Frame rate

You can use the scroll open menu to set the frame rate of the video you wish to capture. E.g. 30 fps means that the WebCam will capture video at 30 frames per second.

# WebCam settings

## ⑤ Auto Exposure & Exposure slider

The exposure is the amount of light received by the sensor and is determined by how long the sensor is exposed to capture a snapshot or video frame. The result depends on the sensitivity of the sensor. The WebCam will find the optimal setting if you select the automatic exposure option. You can use the exposure slider if you would like to set the WebCam according to your personal preferences.

## ⑥ Reset

Press this button if you would like to reset the WebCam settings to the default factory settings.

## ⑦ Save

Press this button if you would like to save your personal preferred settings.

## ⑧ Restore

Press this button if you would like to restore your personal preferred settings.

## ⑨ Auto White Balance

Most light sources are not 100% pure white but have a certain 'color temperature'. Normally our eyes compensate for lighting conditions with different color temperatures. If the automatic white balance is selected, the WebCam will look for a reference point which represents white. It will then calculate all other colors based on this white point and compensate the other colors accordingly, just like the human eye.

You can also select fixed settings for 'Indoor', 'Outdoor' and 'Fluorescence' conditions or use the 'Red' and 'Blue' sliders if you would like to set the WebCam according to your personal color temperature preferences.

## ⑩ Brightness

Brightness enables you to adjust the brightness of the displayed image or video to suit your own preference. Use the slider to find your preferred setting.

- ⑪ **Contrast**

Contrast enables you to control the ratio between dark and light according to your own preference.  
Use the slider to find your preferred setting.
- ⑫ **Gamma**

Gamma enables you to brighten dark areas within the displayed image or video and visualize more details without over-exposing already light areas.  
Use the slider to find your preferred setting.
- ⑬ **Saturation**

Saturation enables you to set the color reproduction from black and white to a full color image or video according to your own preference.  
Use the slider to find your preferred setting.
- ⑭ **Black and white**

The 'Black and white' checkbox is used to switch from color images to black and white and back.
- ⑮ **Backlight compensation**

Turn on the backlight compensation to improve the image quality when you have a scene where the background has a high illumination level (for instance when you are sitting in front of a bright light).
- ⑯ **Mirror**

Clicking the 'Mirror Image' checkbox flips the image horizontally. You can use this feature when you want to use the Philips SPC220NC/SPC225NC and monitor as a mirror, or to take pictures of mirrored images.

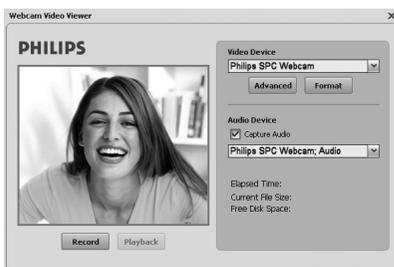
# Operating the WebCam

## WebCam Video Viewer

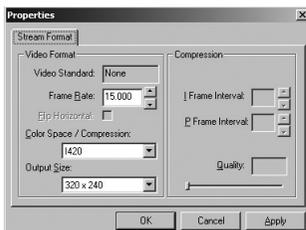
All WebCam applications can be accessed via the WebCam Video Viewer. The WebCam Video Viewer is the central application for easy access to your Philips WebCam and all image and video applications installed during setup.

- **Start the WebCam Video Viewer:**
  - through the Windows QuickLaunch menu in your taskbar,
  - via the program group 'SPC220NC WebCam', or
  - by clicking the the WebCam Video Viewer icon  on the desktop.

> The WebCam Video Viewer will now be initiated and the WebCam Video Viewer selection screen appears.



- **Select 'Format'** if you wish to adjust the video format:
  - > The 'Properties' screen appears.



- **Frame Rate:** the number of frames displayed per second. The higher the frame rate, the better the video quality.
- **Color Space (RGB 24) / Compression (I420):** **Compression I420** reduces the quantity of data used to show video content without excessively reducing the picture quality. Compressed video files are easier to store and transmit than non-compressed video files. Select this option for Internet applications.

- **Color space** is a representation of the amount of color gradations the WebCam is able to capture, expressed in bits per pixel (individual point of color). **RGB24**, also known as Truecolor; refers to 8 bit per color component (Red, Green, Blue), resulting in 24 bits per pixel. This mode makes it possible to represent 256 gradations of each color component. Select this option for non-Internet applications.

- **Output size (resolution):**

Resolution is the number of pixels (individual points of color) on both horizontal and vertical axis of a monitor. The sharpness of the displayed image depends on the resolution and the size of the monitor. The higher the output size, the higher the resolution (and sharpness) of the displayed image.

- Select '**Advance**' to access the WebCam settings. See 'WebCam settings'.
- Check the '**Capture Audio**' box if you wish to capture your voice as well during video recording.

## Making a video recording

### 1 Select '**Record**'.

### 2 Select a folder to store the recording in.

> Recording starts immediately.

> Elapsed playing time, file size and free disk space are shown.

- Select '**Stop**' to stop recording.
- Select '**Playback**' to play the recording.



## Instant messaging and Internet calling (video chatting, video calling and VoIP)

The Philips SPC220NC/SPC225NC WebCam works with all free instant messaging and VoIP (Voice over Internet Protocol) applications such as Skype, Windows® Live Messenger, Yahoo! Messenger, AOL Messenger and QQ.

- Download and install the desired applications via their websites.
- Follow the on-screen instructions during downloading and installing.
- After installing an application, make the required WebCam settings *within* the application in order to be able to properly use the WebCam via the application.

## Technical specifications

Sensor .....	CIF CMOS
Real video resolution (Max.) .....	320 x 240
Real still image resolution (Max.) .....	320 x 240
Interpolated still image resolution (Max.) .....	640 x 480
Frames per second .....	30 fps
F-number .....	2.2
Lens view angle .....	54 degrees
Minimum subject illumination .....	< 10 lux
Data format .....	I420, IYUV
Interfacing .....	USB 1.1
USB cable length .....	1.5 m
Microphone .....	- External microphone supplied (SPC220NC) - In-ear headset supplied (SPC225NC)
Power .....	supplied via USB cable
Voltage requirements .....	5V (— — —), 0.5A

## Disclaimer

Philips makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

Philips assumes no responsibility for any error that may appear in this document. Philips makes no commitment to update nor to keep current the information contained in this document.

## FCC compliance

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.

### **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:*

- *Reorient or relocate the receiving antenna.*
- *Increase the separation between the equipment and receiver.*
- *Connect the equipment to 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.*

Any unauthorized modification to this equipment could result in the revocation of the authorization to operate the equipment.

# Important information

## Environmental information

### *Disposal of your old product*

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.



When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC

Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.

### **WARNING**

Plastic bags can be dangerous. To avoid danger of suffocation, keep this bag away from babies and small children.

## System requirements

- Microsoft® Windows® 98SE/2000/ME/XP or Vista;
- Pentium® III, 500 Mhz or equivalent;
- 128MB RAM and 100 MB free hard disk space;
- One free USB port and CD-ROM or DVD drive.

## Disclaimer of warranty

The software on the CD-ROM supplied is sold 'as is' and without warranties whether expressed or implied. Because of the various software and hardware environments into which this program may be put, no warranty of fitness for a particular purpose is offered.

## Limitations of damages

The vendor will not be liable for any indirect, special, incidental or consequential damages (including damages for loss of business, loss of profits, or the like), whether based on breach of contract, tort (including negligence), product liability or otherwise, even if the vendor or its representatives have been advised of the possibility of such damages and even if a remedy set forth herein is found to have failed its essential purpose.

Where to go for information and support?

Please visit our website: [www.philips.com](http://www.philips.com) for the latest product information.

Go to: [www.philips.com/support](http://www.philips.com/support) for the latest version of drivers and for troubleshooting tips.

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