

VISULEX Maki

User's Manual



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PAPENMEIER

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User's manual VISULEX Maki
As of: 09.2016

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Changes and/or improvements of this product are subject to change without prior notice.

Scope of Delivery

Introduction

Thank you for purchasing
VISULEX Maki.

VISULEX Maki offers a pin-sharp smooth moving image. This can be achieved by Full-HD resolution with 60 frames per second. Smallest fonts will be presented in an easily legible way by means of the optical 30-times zoom. Thanks to modern LED-technology and to using polarizing filters, you will obtain optimum illumination at minimum reflections.

VISULEX Maki offers high flexibility because of its compact size and reduced weight. An optional table clamp provides additional space at your working place.



Scope of Delivery

VISULEX Maki ships with the following components:

- Base plate
- Camera arm
- Control panel
- Power supply unit
- Manual

- Cross table
- Table clamp (optional)
- Switch box (optional)
- Low Vision Controller(optional)
- Software (optional)

Address

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VISULEX Maki

Getting Started with VISULEX Maki

Installation and Operation

Please position the base plate on a plain surface at your working place. Release the thumbscrew. Place the camera arm into the base plate so that the camera head will be located above the base. Please fix the camera arm by means of the thumbscrew.

Connectors at the Camera Arm

Please position the control panel in a way that you can reach it without any difficulties. Connect the PS/2 cable of the control panel to the PS/2 port at the camera arm.

Note: Do connect only the control panel which is included in the delivery scope to the camera arm. Other connected devices may lead to irreparable damages.

Connect monitor and camera arm by means of a DVI-cable.

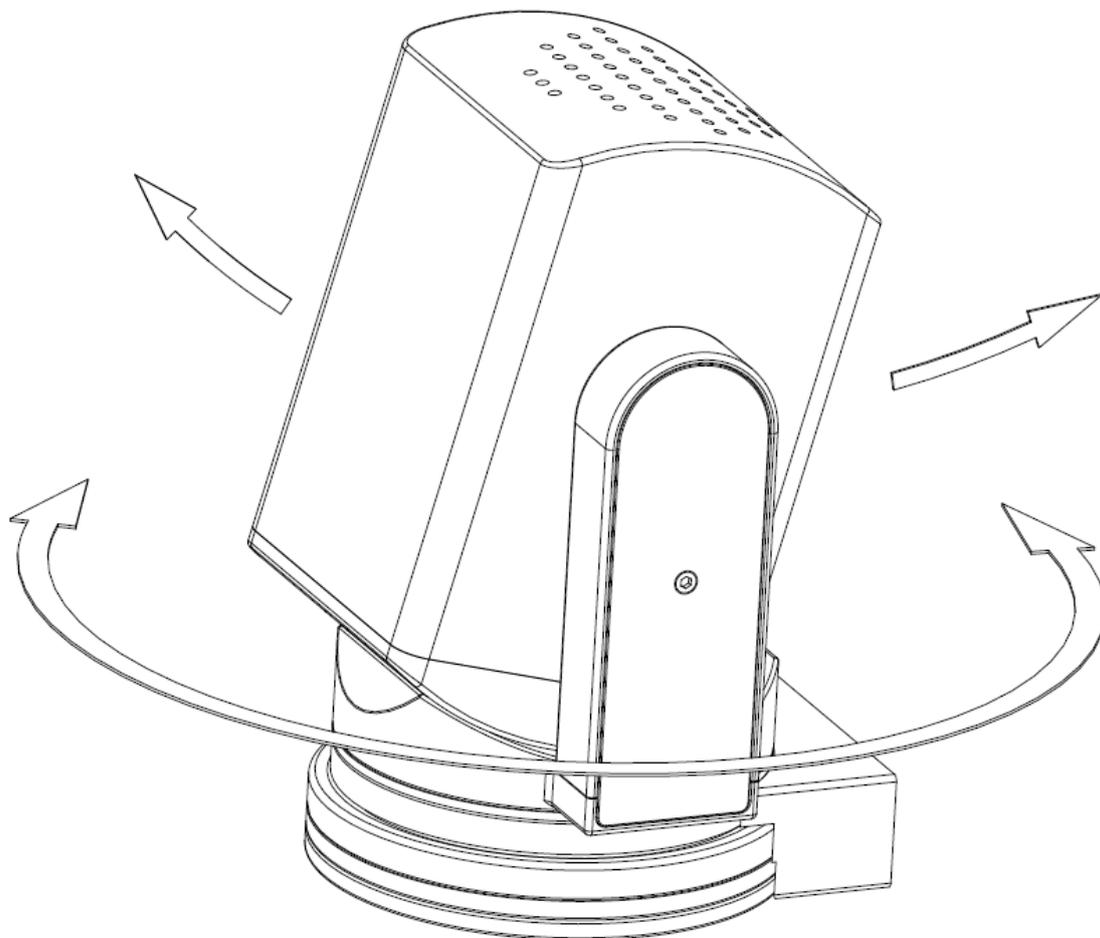
Finally, plug the power adapter into a power socket and place the connector into the port at the camera arm.

Now, your VISULEX Maki is ready to be used and can be switched on.

Moving the camera

The camera arm is firmly connected to the base plate and cannot be turned.

However, you can turn the camera head by 110 degrees in each direction: To the right, to the left, forward and backward respectively. Every direction has got a stop.



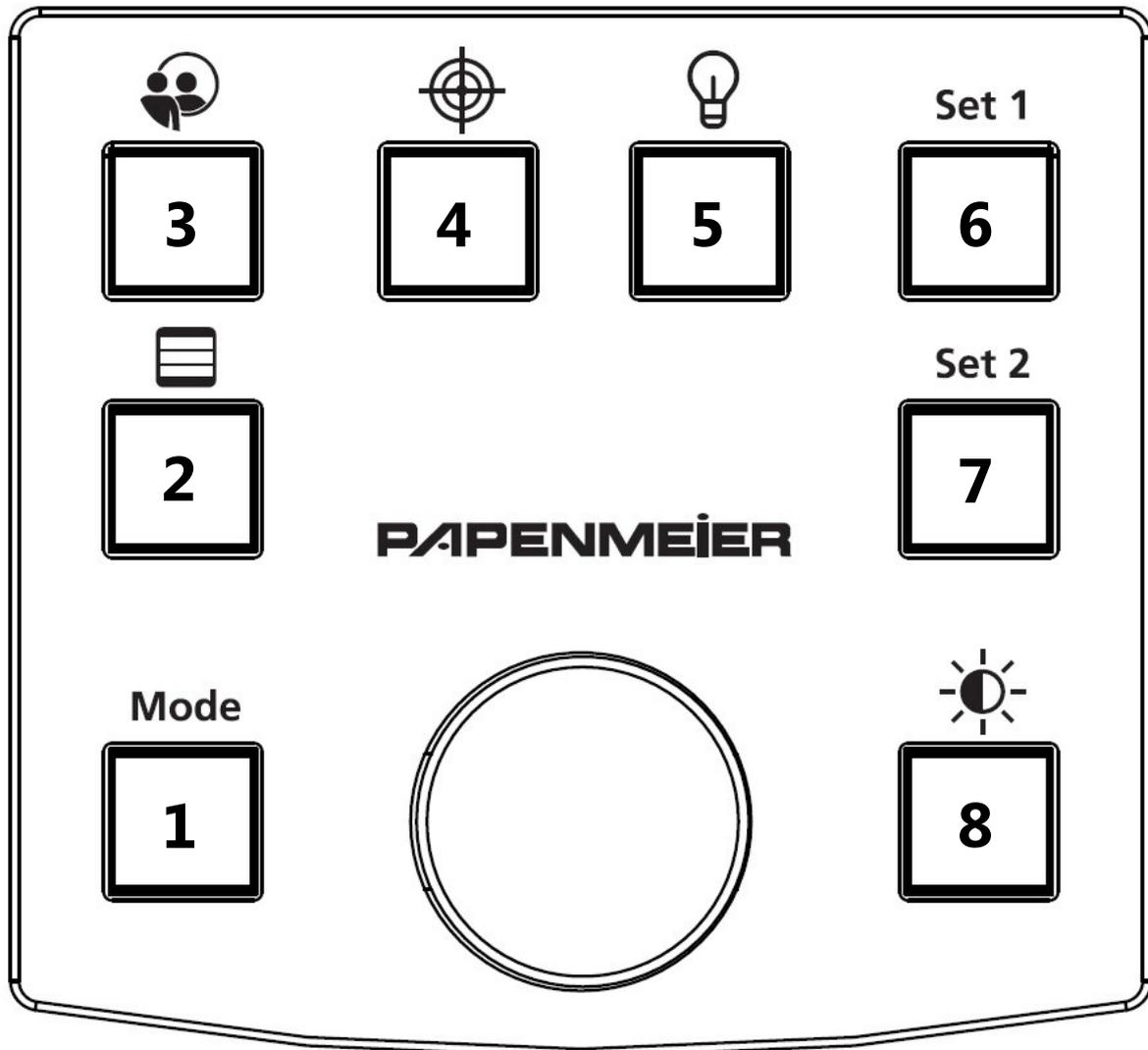
In order to view objects located further away (like blackboards) please turn the camera head forward towards the board.

When you turn the camera head towards you, the display will be upside down. Please activate the mirror mode in order to flip the picture.

Please press the key 

Control Panel

The control panel consists of a rotary knob including a push button and eight keys. In this manual, the keys will be described in clockwise direction.



Operating Concept

Performing a short key press will execute a direct function.

Performing a long key press will set up a value in most cases by means of the rotary knob. The changing value will be displayed on the top left of the monitor.

By means of the rotary knob the values are changed as follows:

- To increase a value, turn the rotary knob to the right.
- To decrease a value, turn the rotary knob to the left.

The changes will be visible immediately.

Note: The changed values have to be confirmed by pressing on the rotary knob.

The process will be cancelled if no value has been changed or confirmed during 15 seconds. Furthermore the process will be cancelled by pressing any key. Thus, the old values will be restored.

Optionally, you can hear three signal sounds which are deactivated by default.

Zoom

When the default function is activated, the zoom can be set by means of the rotary knob.

- To increase the zoom level, please turn the rotary knob to the right.
- To decrease the zoom level, please turn the rotary knob to the left.

Key 1 – Colour modes

Perform a short press on Key 1 to switch between colour modes. The following colour modes are available:

- True Colour
- Greyscale
- Pseudocolour
- Pseudocolour inverse

After the mode “Pseudocolour inverse”, the mode “True Colour” will be selected again.

True Colour:

When the mode “True Colour” is selected and a long press on Key 1 is performed, the colour saturation can be set. By means of the rotary knob, you can select the optimum colour saturation according to your needs. By pressing on the rotary knob the changed value will be confirmed.

Pseudocolour / Pseudocolour inverse:

When the mode “Pseudocolour” or “Pseudocolour invert” is selected and a long press on Key 1 is performed, the Pseudocolour combination can be chosen. By means of the rotary knob, you can select the optimum Pseudocolour combination according to your needs. By pressing on the rotary knob the selected combination will be confirmed.

Key 2 – Lines and Curtains



Perform a short press on Key 2 and activate or deactivate the lines or curtains.

When the lines or curtains are activated and a long press on key 2 is performed, the lines and curtains can be configured in four steps.

Step one:

First, you can select the type of lines or curtains therefor turn the rotary knob to the right or to the left. You can choose between the following line or curtain types:

- Horizontal lines
- Horizontal curtains
- Vertical lines
- Vertical curtains

By pressing on the rotary knob the line or curtain type will confirmed. This will lead you to the next step.

Step two:

In this step, the first line or the first curtain will be positioned by means of the rotary knob according to the selected line or curtain type.

If the line should approach the other line to closely, the other line will be moved accordingly. The same applies to the curtains.

By pressing on the rotary knob the position will confirmed. This will lead you to the next step.

Step three:

In this step, the other line or the other curtain will be positioned by means of the rotary knob, analogue to step two.

By pressing on the rotary knob the position will be confirmed. This will lead you to the last step.

Step four:

In the final step, the colour of the lines or curtains can be selected. By means of the rotary knob, you can select the optimum colour according to your needs.

By pressing on the rotary knob the selected colour of the lines or curtains will be confirmed. Now the configuration process is completed and the parameters for the lines and curtains will be applied.

When you press another key during the configuration process, all settings will be discarded and you will leave the configuration process.

Key 3 – Mirroring



Perform a short press on Key 3 to flip the image horizontally. This is required for the use as a board camera when you turn the camera head away from the camera arm, towards you.

When the image is flipped horizontally and a long press on Key 3 is performed, the image will be flipped vertically in addition. Consequently, you will obtain a presentation of a mirror.

Key 4 - Overview / Focus

Overview



Perform a short press on key 4 to activate the overview mode. This is very useful when you have lost orientation in your document because of high magnifications.

In Overview mode, the following settings will be activated:

- Minimum zoom
- True colour
- Lines and curtains are deactivated
- Cross-hair is shown

The cross-hair points at the area by minimum zoom which has been magnified at last.

Thus, the orientation in the document will be much easier. Now, you will have two possibilities:

1. Realign your document by means of the cross-hair. Press Key 4 again or press on the rotary knob. Colour effects, lines, curtains and zoom will be set to their previous values.
2. While Overview mode is activated, you can adjust the zoom to find the area more easily which you wish to magnify. Press Key 4 again or press on the rotary knob. Colour effects, lines or curtains will be set to the previous values. The Zoom will remain at the selected magnification.

Focus

By performing a long press on Key 4, the focus can be readjusted manually by means of the rotary knob.

By pressing on the rotary knob, you will confirm the changed focus value.

As soon as you change the zoom, the autofocus will be reactivated.

Key 5 – LED-Light



Perform a short press on Key 5 to switch the LED light in the camera arm on or off.

By performing a long press on Key 5, the light brightness can be adjusted. By means of the rotary knob you can select the optimum light brightness according to your needs. By pressing on the rotary knob, the changed value will be confirmed.

Key 6 – Set 1

By performing a short press on Key 6, the saved settings of set 1 will be loaded.

By performing a long press on Key 6, the current settings will be saved in set 1.

Key 7 – Set 2

By performing a short press on Key 7, the saved settings of set 2 will be loaded.

By performing a long press on Key 7, the current settings will be saved in set 2.

Key 8 – Image parameters



By performing a long press on Key 8, you are able to adjust the image parameters depending on the selected colour mode.

True Colour

When True Colour is activated, the image brightness can be adjusted. By means of the rotary knob, you can adjust the optimum brightness according to your needs. By pressing on the rotary knob the changed value will be confirmed.

Pseudocolour

When Pseudocolour is activated, the threshold value of Pseudocolour can be adjusted. By means of the rotary knob, you can adjust the optimum threshold value according to your needs. By pressing on the rotary knob the changed value will be confirmed.

Key 8 –Toggle (optional)

By performing a short press on Key 8, you can toggle between two image sources by using the optional switch box.

Standby-Modes

VISULEX Maki has got two different standby modes.

The first standby mode reacts to movements within the image. You are able to define the time in the on-screen menu or you can switch off the standby mode completely. If no image change has been detected in the set time, the LED Light will switch off and the image will turn black. You are able to exit stand-by mode by means of a gesture under the camera, by pressing a key or by turning the rotary knob.

Please note that also small changes of brightness, vibrations or shadows will cause an image change.

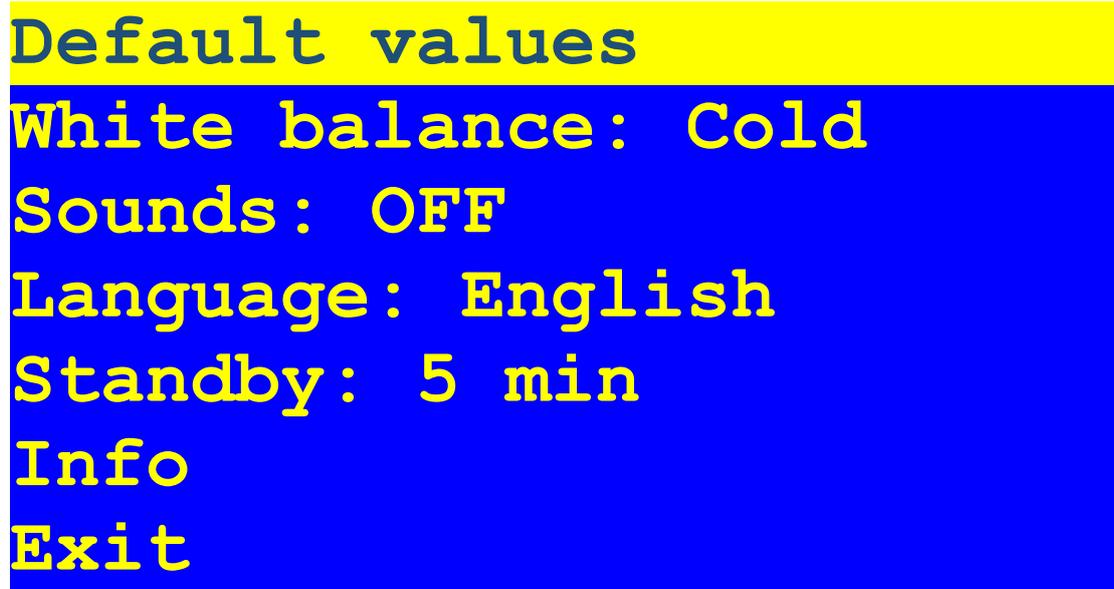
The second standby mode is independent from the first one and cannot be configured. If there has not been any operation on the device during 30 minutes, this stand-by mode will be activated. You are able to exit this stand-by mode by pressing a key or by turning the rotary knob.

The on-screen menu

By means of the on-screen menu, you can set system parameters.

To activate the on-screen menu, please press the keys 3, 4, 5 and 6 simultaneously for three seconds.

The following menu will be presented:



The screenshot shows a menu with a yellow header and a blue background. The text is in a yellow, monospaced font. The menu items are: Default values, White balance: Cold, Sounds: OFF, Language: English, Standby: 5 min, Info, and Exit.

```
Default values
White balance: Cold
Sounds: OFF
Language: English
Standby: 5 min
Info
Exit
```

The colour combination of the menu depends on the selected Pseudocolour combination.

By means of the rotary knob, you can move up and down in the menu as follows:

- Turn the rotary knob one step to the right in order to get to the next menu item.
- Turn the rotary knob one step to the left in order to get to the previous item.

Please press on the rotary knob in order to open the selected menu item.

Default Values

The on-screen menu presents you the following line:

Default values: <NO>

Select <YES> by means of the rotary knob and confirm this by pressing on the rotary knob. All values will be reset to Default Settings.

Please note: The saved sets will get lost as well.

You will get back to the previous menu.

If you wish to cancel the process, please select again <NO> by means of the rotary knob and confirm this by pressing on the rotary knob.

You will get back to the previous menu.

White Balance

The on-screen menu presents you the following line:

White balance: <Cold>

By means of the rotary knob, you can select between the following settings:

- Cold: Perfectly suitable for documents and tables
- Warm: Perfectly suitable for images and graphics
- Auto: Perfectly suitable for frequently changing documents

Confirm your selection by pressing on the rotary knob. You will get back to the previous menu.

Sounds

The on-screen menu presents you the following line:

Sounds : <OFF>

By means of the rotary knob, you can switch the signal sounds on or off. Once you have deactivated the sounds, you will receive no more acoustical feedback.

Confirm your selection by pressing on the rotary knob. You will get back to the previous menu.

Language

The on-screen menu presents you the following line:

Language : <English>

By means of the rotary knob, you can select your favourite language. The display will be upgraded automatically.

Confirm your selection by pressing on the rotary knob. You will get back to the previous menu.

Standby

In Standby mode, the LED is deactivated and the image will turn black. In order to quit standby mode, simply make a wiping gesture under the camera.

The on-screen menu presents you the following line:

Standby: <5 min>

By means of the rotary knob, you can set the time after which the Standby mode is to be activated. In order to deactivate the Standby mode, turn the rotary knob to the left until you read <OFF>.

Confirm your selection by pressing on the rotary knob. You will get back to the previous menu.

Info

In this menu, you will obtain information about your VISULEX Maki. Among other things, you will find the version number which should be available if service support is required.

Optional Components

Low Vision Controller

In order to switch or mix two image sources, please use the Low Vision Controller.

Installation

Connect the output of VISULEX Maki and the second desired image source, e.g. a computer to the inputs of the low vision controller (Input 1, Input 2). Connect the output of the low vision controller (Monitor Output) to the monitor.

Operation

Use the keys on the low vision controller to control the the switching or mixing of the images. In the following, you will be given a short instruction to the most important keys and their functions.

Fixed half

Key: **1**

Use this key to define the fixed half. The fixed half will be displayed as full image when image mixing is switched off.

Depending on the selected split screen mode, you can choose between right/left, up/down.

Split Screen Mode

Key: **2**

Use this key to define the split screen mode. You can choose between up/down or right/left.

Switching image half

Key: 

Use this key to switch the two image halves when split screen is activated. The selected fixed image half will not be changed.

Split Screen on/off

Key: 

Use this key to activate/deactivate split screen.

Switching Image Source

Key: 

Use this key to switch the image sources in full image. When split screen is activated, this key does not have any function.

Resizing Split Screen

Keys:  

Use these keys to move the sections when split screen is activated.

If split screen is set to right/left, the key „Up“ will move the split screen to the left so that the right section will become larger and the left one smaller respectively.

PC Software

Installation

Please install the program on your windows system and follow the instructions of your installation wizard:

Connect your VISULEX Maki to your computer. For this purpose, use a free USB port and start the program.

Please note: When using the PC software, it is important that you connect the control panel to the camera arm!

Operation

On the left side of the window, there is a toolbar which enables you to perform the presented actions. These functions are identical to the ones of the control panel. You can operate all functions of the menu bar either using the mouse or the keyboard.

The most required functions have got global hotkeys that you can adjust yourself according to your wishes.

Zoom



By means of the zoom buttons, you can adjust the magnification. By performing short clicks on the



button, you will change the zoom in small steps.

Perform a long press to change the zoom continuously. The longer you press the button, the more you increase the steps as well.

You can also control the zoom using the space bar if the button has got the focus. As another option, you can control the zoom using hotkeys.

When you click on one of the Zoom buttons with the right mouse key, a context menu will be opened in which you can select pre-defined zoom levels directly.

Colour modes



Please press the button to toggle between the colour modes. The function is identical to Key 1 on the control panel.

The following colour modes are available:

- True colour
- Grey scale
- Pseudocolour
- Pseudocolour inverse

After the mode „Pseudocolour Inverse“, the mode „True Colour“ will be selected again.

As another option, you can control the colour modes using hotkeys.

When you click on the button with the right mouse key, a context menu will be opened in which you can select a colour mode explicitly. When „Pseudocolour“ or „Pseudocolour inverse“ is selected, you are able to choose the desired colour combination additionally.

Lines and Curtains



Please press the button and activate or deactivate the set lines or curtains. Please use Key 2 at the control panel in order to configure the lines and curtains. As another option, you can control the lines and curtains using hotkeys.

Overview



Please press the button and activate or deactivate the overview function. Please use Key 4 at the control panel to configure the focus. As another option, you can control the lines and curtains using hotkeys.

LED Light



Please press the button to switch the LED light of the camera arm on or off. When you click on the button with the right mouse key, a context menu will be opened in which you can select a pre-defined brightness. If you wish to make finer brightness adjustments, please use Key 5 at the control panel. As another option, you can control the LED light using hotkeys.

Mirroring



Please press the button to flip the image horizontally. This is required for the use of a board camera when you turn the camera head away from the camera arm, towards you. As another option, you can control the mirroring using hotkeys.

Set 1 and Set 2

1

Please press on one of the buttons to load the saved settings of each set.

2

In order to save new settings, please use the appropriate keys at the control panel.

Hotkeys

The PC program has got global hotkeys. By means of these key combinations, you can perform the function, no matter which program is in the foreground, as long as VISULEX Maki has been started.

At present, the following hotkeys are available:

Hotkey function	Default combination
Zoom Plus	Ctrl + Alt + Num Plus
Zoom Minus	Ctrl + Alt + Num Minus
Colour Mode	Ctrl + Alt + Num 1
Lines & Curtains	Ctrl + Alt + Num 4
Mirror	Ctrl + Alt + Num 7
Overview	Ctrl + Alt + Num 8
LED on / off	Ctrl + Alt + Num 5

If there should be any „conflicts“ with hotkeys of other programs, you will receive an error message when the software has been started. The error message tells you what kind of hotkey it is. This way, you are able to simply fix the „conflict“ in the hotkey manager. In the hotkey manager, the status of the hotkey provides information about its state.

The following states are available:

- Default:
The default combination for the hotkey has been activated successfully.
- User-defined:
A user-defined combination has been activated successfully.
- Error
the combination could not be activated. Thus, it does not matter if it is a user-defined or the default combination.

You can always change the hotkey combination and adjust it according to your wishes. Please select the appropriate hotkey from the list and simply assign a new key to it. You can also change the combination of the keys Shift, Strg, Alt or Windows. Afterwards, click on „Apply“ The status of the hotkey will change to „User-Defined“ if the hotkey has been changed successfully.

Appendix

Service

In case of any defect of the device, please contact an authorized Papenmeier service centre. If you are in doubt about the service centre responsible for your area, please contact Papenmeier:

F. H. Papenmeier GmbH & Co. KG

Phone: +49-2304-9460

Fax: +49-2304-946 246

E-mail: info.reha@papenmeier.de

If possible give a short description of the kind of disturbance.

Safety Advice

Before starting to operate the VISULEX device, the user should read this manual.

The device may only be used in closed and dry rooms. The ambient temperature must not exceed 40° C (ca. 105° F). Do not expose the device to direct sunlight or humidity (rain).

Repairs and maintenance work may only be undertaken by Papenmeier or by authorized service centres.

Do not expose the product to strong pressure, and do not drop any objects on the product. This might damage the product or lead to malfunctions.

Service and Maintenance

Avoid touching the device with dirty hands. You may clean the surface of the device and the optical components with a soft, damp cloth. Do not use any aggressive detergent or soap.

WEEE Rg. Nr. DE 60886380

Purpose of the Device

This device is intended to be used for the purpose of compensation for the handicap of visually impaired people.

The device comply with the requirements of the European Union Medical Devices Directive, as an **active class I medical product** intended to be used for the purpose of compensation for a handicap.

This product may only be used in home or office environments. In medical facilities, this product may only be used in office rooms.

The device and its original accessories comply with the relevant standards regarding the electro-magnetic compatibility (EMC) and the safety, and are marked with the CE sign.

There are no known risks for your health that might be caused by the use of this product.

General Precautions

Our products guarantee optimum safety and reduce to a minimum the strain caused through over-exertion. However, when respecting some precautions you can contribute to avoid prejudice to your health or damage to the product.

If a cellular phone is used close to the product, a minimum distance of 30 cm (1 ft) shall be respected.

Do not expose the product to strong pressure, and do not drop any objects on the product. This might damage the product or lead to malfunctions.

In order to avoid repetitive strain injury caused through long-time use of the function elements, we suggest pauses and relaxation exercise. In specialized bookshops you also find literature on how to equip a workplace in an ergonomically way and on how to avoid strain through an appropriate sitting position.

Technical Data

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CE-Marking

EG-KONFORMITÄTSERKLÄRUNG

(nach Medizinprodukte-Richtlinie 93/42/EWG Anhang VII)

DECLARATION OF CONFORMITY

(according to the Medical Device Directive 93/42/EEC Annex VII)

Wir, We F.H.Papenmeier GmbH & Co KG
Talweg 2
D-58239 Schwerte
Germany

erklären in alleiniger Verantwortung, dass die Medizinprodukte
declare under our sole responsibility that the medical devices

VISULEX Maki

(PN: 1883.020.00)

der Klasse I allen Anforderungen der Medizinprodukte-Richtlinie 93/42/EWG entspricht, die
anwendbar sind.
of class I meets all the provisions of the directive 93/42/EEC which apply to it.

Angewandte harmonisierte Normen, nationale Normen oder andere normative Dokumente
Applied harmonised standards, national standards or other normative documents

- EN 12182** Technische Hilfen für behinderte Menschen
Technical aids for disabled persons
- EN 14971** Medizinprodukte-Anwendung des Risikomanagements auf Medizinprodukte
Medical devices-Application of risk management to medical devices
- EN 60601-1-2** Medizinische elektrische Geräte - Teil 1-2: Allgemeine
Festlegungen für die Sicherheit einschließlich der wesentlichen
Leistungsmerkmale - Ergänzungsnorm: Elektromagnetische
Verträglichkeit - Anforderungen und Prüfungen
*Medical electrical equipment - Part 1-2: General requirements for basic
safety and essential performance - Collateral standard:
Electromagnetic compatibility - Requirements and tests*
- EN 60950-1** Einrichtungen der Informationstechnik - Sicherheit - Teil 1: Allgemeine
Anforderungen
Information technology equipment - Safety - Part 1: General requirements

Schwerte, 31.03.2016
(Ort, Datum der Ausstellung)


(Name und Unterschrift oder
gleichwertige Kennzeichnung des Befugten)