

User Manual

MagniLink PRO - Chromebook

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1 About LVI

LVI Low Vision International AB was founded in 1978 and is one of the world's leading manufacturers of equipment for persons with visual impairments. Development of new products takes place in close cooperation with users and professional staff within the low vision rehabilitation industry. LVI is quality-certified in accordance with ISO 9001 and environmentally-certified in accordance with ISO 14001.

The information in this manual has been carefully checked and is believed to be accurate. However, LVI assumes no responsibility for any inaccuracies that may be contained in this manual. In no event will LVI be liable for direct, indirect, special, exemplary, incidental, or consequential damages resulting from any defect or omission in this manual. In the interest of continued product development, LVI reserves the right to make improvements in this manual and the products it describes at any time, without notice or obligation.



2 Introducing MagniLink PRO

Thank you for choosing this video magnifier. Our aim is for you to be satisfied with your choice of supplier and reading aid.

MagniLink PRO is a video magnifier designed for people with visual impairment. The video magnifier offers features including the potential to set the magnification, autofocus, several artificial colours, the option of switching the magnifier between reading mode, mirror mode and distance mode and the option of adjusting the brightness. MagniLink PRO can be connected to any monitor, a PC or a Mac. It is also possible to collapse the system when it is not being used or for transportation.





MagniLink PRO offers genuine full-HD quality. Available accessories comprise a dockable reading table, battery as well as software for OCR-processing and reading text aloud.

Table of additions to the product code MLPRO-FHD- depending on which accessories have been ordered.

А	Dockable reading table with friction brake X/Y	
В	Pre-installed battery	
С	Text To Speech for PC	
D	Text To Speech for Mac	



The systems complies with all CE certification requirements for medical devices in accordance with EU regulation 2017/745.



3 Information

3.1 Reuse, installation and maintenance

The device may only be technically overhauled and prepared by an authorized company. Re-use may only be carried out after appropriate inspection and cleaning / disinfection.

3.2 Cleaning

Before equipment cleaning and maintenance note:

- Disconnect the device from the power supply before cleaning.
- Use a slightly damp (not wet) cloth and a cleaning / disinfectant agent intended for monitors and computers.
- Do not allow any liquids to enter the device.

3.3 Safety information

- Only use the power adaptor supplied with the product. Using an incorrect type of power adapter may cause damage to the system.
- Place the power cord in such a way that you can neither trip over it or that crush damages can occur.
- If the product is moved from the cold into a warm room, condensation (moisture) can form inside the unit or on the camera lens. To prevent problems with condensation, the apparatus should be installed in the room at least 30 minutes prior to usage.
- Never operate the product if it has been exposed to water or other liquids. Damaged or wet product can cause electric shocks or fire.
- Only use the battery supplied with the product. If the battery needs to be changed, please contact LVI.
- Be careful not to catch your fingers when collapsing your MagniLink PRO.
- When MagniLink PRO is to be moved, collapse it and lift from beneath. If MagniLink Pro has a dockable reading table, this must be anchored and locked before moving the system.
- If the system requires cleaning, pull out all cables and use a slightly damp (not wet) cloth. Use only water or a cleaning agent that is intended for monitors and computers.



- Make no further adjustments, even if the product does not function normally after following the functional descriptions. Pull out the power cable and contact service staff or the product distributor.
 Only use spare parts that are specified by LVI.
- Always switch off the power when the system is not being used. If in doubt, contact your supplier.

Warning



The product is supplied packed in a plastic bag. To avoid risk of suffocation, keep the bag out of the reach of children and infants.



4 Unpacking

The system is supplied in a box with the following contents:

- Reading camera
- Power adaptor
- Carrying case
- User Guide
- USB memory stick with software
- USB cable
- HDMI to HDMI cable

Check first that the box has no external damage. In the event of damage, contact the delivery company and file a notification of damage.

Open the box and take out the MagniLink PRO; remove the packaging. For further information, please see Installation.

4.1 Packaging

The packaging consists of the following packaging material (LVI recommends that the packaging be kept in case you have to return the system or you need to move it):

- Packing material (EPEL E)
- Box (corrugated cardboard)
- Polyethylene (LDPE4)

For sorting and collection of packaging material, please call the packaging collection customer service department for information on the rules that apply in your municipality.

Note that the product and its accessories must be recycled as electronic waste. A worn-out battery is recycled as electronic waste.



5 Accessories



Dockable reading table with friction brake X/Y (MLRT-XY).



Battery (ML-BAT).





LVI Monitor 19" (MLS-A103) and 23" (MLS-A104).



Text To Speech for PC (TTS-PC) or Mac (TTS-MAC).



6 Installation

6.1 Unfolding





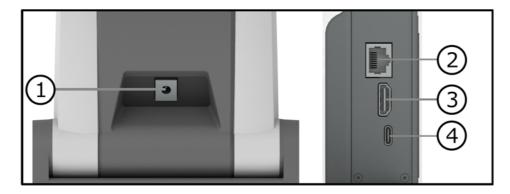


- 1. Place your MagniLink PRO on the table in front of your seat.

 Remember that the reading table can be pulled out approximately 30 cm in three directions. MagniLink PRO has a low total weight. Therefore, it is very important to place the system at least 10 cm from the edge of the table, particularly when you are using the reading table in its most extended position. Excessive load in this position can cause the system to tip over.
- 2. Take hold of the unit's arm and turn it upwards to the upper end point.
- 3. Turn up the camera arm until it clicks into place. In order to get optimal focus range when a reading table is used with the system, the camera arm must be turned up until it clicks into place once more.



6.2 Connection



1. Power supply

Connect the mains adapter to the socket on the rear.

2. Connection for control box

Connect the control box to this socket.

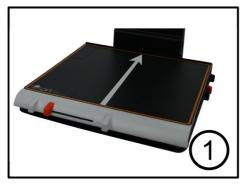
3. HDMI connection

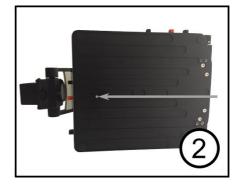
Here the unit can be connected to a monitor that supports HDMI or DVI.

4. USB connection

Used to connect the unit to a computer.

6.3 Installation of reading table



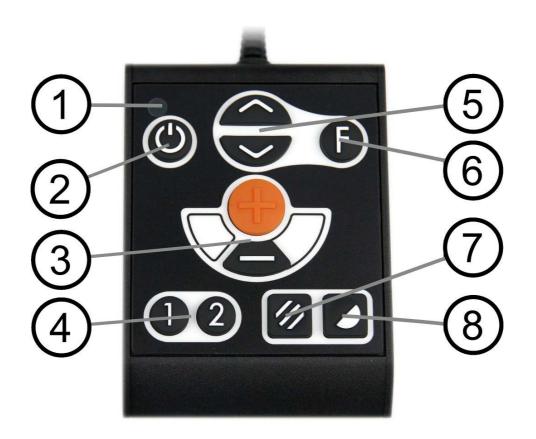


- 1. Install the reading table by pushing it in towards the unit.
- 2. In order to permanently install the reading table. Fasten the reading table securely with a screw on the underside.



7 Use

7.1 Control box



1. LED

A green light indicates that the unit is on. A flashing yellow light means that autofocus is switched off. The light flashes green when the system is starting. A red light for five seconds when the system is starting indicates that the battery needs to be charged.

2. Power on/off

Press to start or shut down the system.

3. Magnification control

Used to set the magnification. To reduce the zoom, press the lower key (minus) and to increase the zoom, pressure the upper key (plus).

4. Programmable function buttons

When the system is delivered, button 1 switches between automatic and manual focus and button 2 switches between overview mode and normal mode. It is possible to change the function of these buttons via the menu.



5. Lighting configuration or navigation control

Used to configure the light intensity in order to optimise reading conditions. Press the upper half to increase the light intensity and the lower half to decrease it. Also used to navigate in the menu.

6. Function button

When this button is pressed, a menu appears in which further settings can be made.

7. Picture mode

Press the button to switch the picture mode between natural colours and grey scale.

8. High contrast mode with artificial colours
Press the button to switch between the various colour combinations.

7.2 Menu

The menu is opened by pressing the function button. In order to navigate in the menu, press the navigation control. There thirteen main modes in the menu. The current mode is displayed on the screen. After 30 seconds of inactivity, the system returns to normal mode.

If you use the menu at the same time as the system is showing USB video on a computer. Press the short cut command to return to the program's standard values (F11 on PC and Alt + F11 on Mac). This causes the program to set the maximum window size and normal rotation, which is necessary in order for the menu to be displayed correctly.

- 1. Autofocus ("AF-ON" or "AF-OFF" is displayed on the screen) In this mode, you can press the function button to turn autofocus on and off. Autofocus off can be used when you wish to write by hand. In this way, focus is not affected by the pen or your hand.
- 2. **Mirroring** ("MIRROR" is displayed on the screen) In this mode, you can press the function button to mirror the image.
- 3. Overview ("VIEW" is displayed on the screen)
 In this mode, you can press the function button to reduce the magnification to overview mode Press the button again to restore the magnification.



- 4. Focus ("FOCUS" is displayed on the screen)
 In this mode, you can press the function button. When you do so,
 "F-SET" is displayed on the screen and it is then possible to set
 the focus mode manually by pressing the navigation control.
 Manual focus may, for example, be useful for inspection. When
 this has been done, press the function button again to return to
 the menu.
- 5. Reference line/Bar ("REFLINE" is displayed on the screen)
 In this mode, you can press the function button. When you do so,
 "R-SET" is displayed on the screen and it is then possible to set
 the position of the reference line or the bar by pressing the
 navigation control. When you are satisfied with the position, press
 the function button again to save the position.
- 6. Lighting ("LAMP" is displayed on the screen)
 Press the function button in this mode to access the settings for the lamp's brightness. "L-SET" is displayed on the screen and it is possible to reduce or increase the brightness by pressing the navigation control. When you are satisfied with the brightness, press the function button again to return to the menu.
- 7. Shut-off time for screen and lamp ("SLEEP" is displayed on the screen)
 In this mode, you can set whether and after what length of time the system will turn off the lamp and the screen if the camera has not detected any movement. Press the button. It is then possible to select the time with the navigation control. When you are satisfied with the setting, press the function button again. To turn on the lamp and screen again, it is sufficient to move your hand under the camera.
- 8. Shut-off time ("SH-OFF" is displayed on the screen)
 It is possible to set whether and after what length of time the system will be turned off if the camera has not detected any movement. Press the button. It is then possible to select the time with the navigation control. When you are satisfied with the setting, press the function button again.
- 9. **Programming of button 1** ("PRG-F1" is displayed on the screen) In this mode, you can programme which function button 1 is to have. Press the function button. It is then possible to select the function with the navigation control. When you are satisfied with your choice, press the function button again to save the setting.



- 10. **Programming of button 2** ("PRG-F2" is displayed on the screen) In this mode, you can programme which function button 2 is to have. Press the function button. It is then possible to select the function with the navigation control. When you are satisfied with your choice, press the function button again to save the setting.
- 11. **Battery status** (Battery symbol is displayed on the screen)
 In this mode, the current battery status is displayed on the screen.
- 12. Language ("OSD" is displayed on the screen)
 In this mode, you can set the language in the menu. Press the function button. It is then possible to select the language with the navigation control. There are four languages: English (ENG), German (DEU), French (FRA) and Spanish (SPA). When the desired language is displayed, press the function button again to save the language setting.
- 13. **Normal mode** ("EXIT" is displayed on the screen)

 If you press the function button in this mode, you exit the menu and return to normal mode.

7.3 Reading table



1. Side way direction friction adjustment

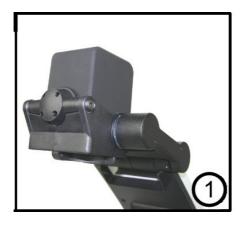
Set the side way friction by moving this handle. With the brake in the left end position, the reading table is unlocked. To increase friction, push the side way brake to the right (at the far right, the brake clicks into locked mode).



2. Depth way direction friction adjustment

Set the depth way friction by moving this handle. With the brake in the near end position, the reading table is unlocked. To increase friction, push the depth way brake towards the back. Push the brake in as far as possible to lock the reading table.

7.4 Camera





The camera has two modes. Reading mode and distance mode. Turn the camera to switch it from reading mode (1) to distance mode (2). When the camera is in distance mode, it can be angled laterally, depending on what you want to look at. In distance mode, the camera can also be turned to a mirror mode. The settings for both modes are automatically saved when you switch from one to the other.

Settings that are automatically saved for these modes are:

- Negative/Positive/Natural colours
- Magnification level
- Brightness/Contrast
- Reference line/Bar
- Mirroring of camera image
- Focus settings



7.5 Battery

The following applies to the MagniLink PRO models that are equipped with a battery. If the battery charge level falls below 10 or 5%, a red battery symbol is displayed to indicate that it is time to connect the mains adapter and charge the battery. To remove the symbol, press the function control.

Maintenance charging

The MagniLink PRO models with a battery are also equipped with a smart battery charger that uses maintenance charging to keep the battery in good condition. To further extend battery life, we recommend that you use your MagniLink PRO twice a year with just the battery (disconnect the mains adapter) until the battery is completely discharged.



8 MagniLink ChromeViewer

MagniLink ChromeViewer is a software used on a Chromebook to display images from a MagniLink camera system. The software controls camera properties such as magnification level, artificial colours and brightness. When a license is obtained, it is possible to OCR process a text and have it read by a speech synthesizer.

8.1 Minimum system requirements

- Chrome OS version 98
- 1 integrated USB 3.0 port.
- Intel Celeron, 2 GB RAM

8.2 Recommended system requirements

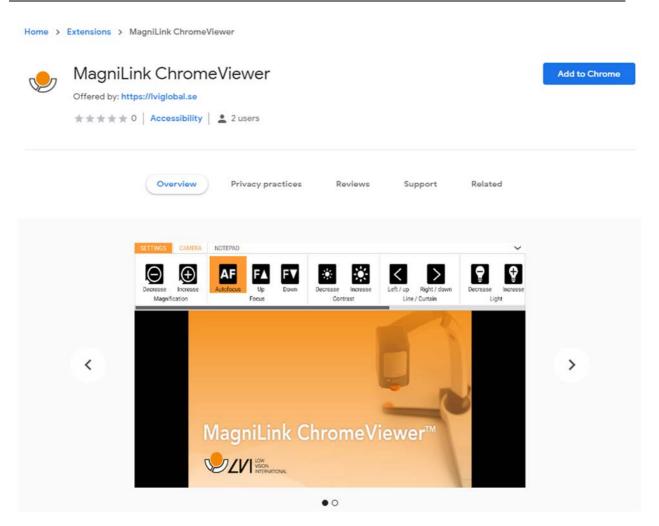
- Chrome OS version 98
- 1 integrated USB 3.0 type A-port
- Intel i5 processor
- 4 GB RAM

8.3 Installation of software

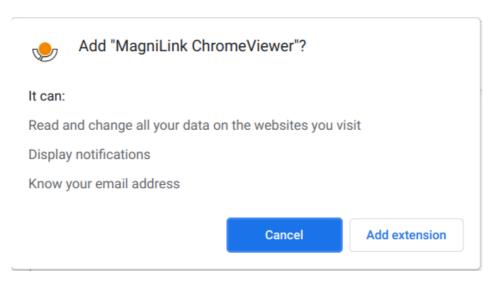
MagniLink ChromeViewer is available for download from the Chrome Web Store. In case you cannot find the application via the search function at the Chrome Web Store, there is a direct link on our website that will take you directly to the installation page.

The link will open a new page with the Chrome Web Store and the MagniLink ChromeViewer will be selected automatically.



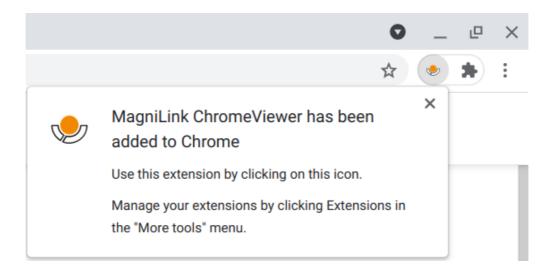


Press Add to start the installation.

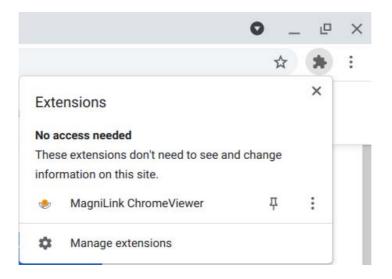


You will then see an information box that explains what the application is able to do, click **Add app** to proceed.





The installation is now complete and you can start the application by following the instructions and clicking the highlighted icon. It is also possible, as described in the picture above, to press the App button to start the application.

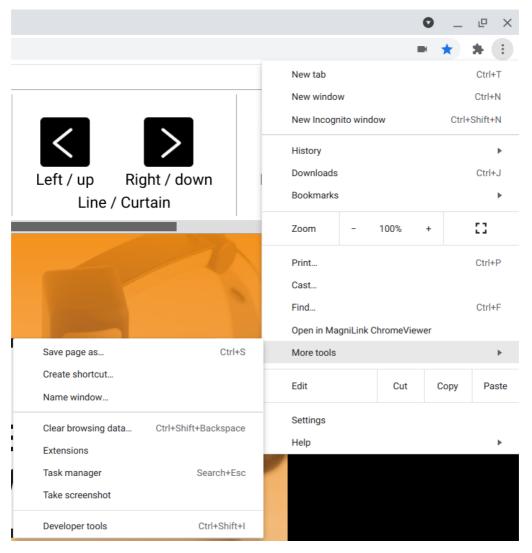


If you want access to MagniLink ChromeViewer in the App Launcher with the option to attach the application to the start area, do as follows.

- 1. Launch MagniLink ChromeViewer.
- 2. Go to Settings.
- 3. Press the Copy URL button located under the About settings page to copy the address to the app.

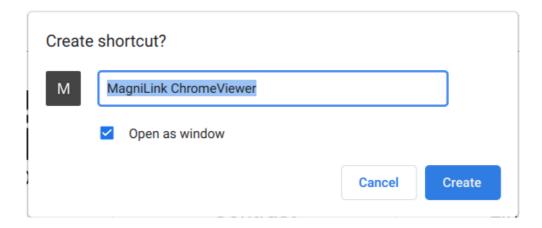


- 4. Launch the Google Chrome browser.
- 5. Select the address field and paste the copied address either by pressing Ctrl + V or by right-clicking on the address field and selecting Paste. Press Enter.
- 6. Under More at the top right, press More Tools and then Create Shortcut.



7. Select Open as window, then press Create.





In App Launcher you can also attach MagniLink ChromeViewer to the start area.

8.4 Licensing

Camera systems used with ChromeViewer can be licensed with OCR. ChromeViewer will automatically detect if your camera system is licensed for OCR.

It is also possible to activate an independent OCR license. Such activation requires you to give ChromeViewer access to certain information in your Google account, as the license key is applied to your Google account upon activation. This means that you will not be restricted to one computer but will be able to use any Chromebook with your Google account and still use OCR in ChromeViewer.

To give ChromeViewer access to your Google account, press the Sign in button under Settings and then follow the instructions. Upon successful sign-in, an input box is displayed where the license key is entered, then press OK. Upon successful activation, you will have direct access to OCR.

Note that OCR with ChromeViewer has the following limitations:

 An internet connection is required for licensing, as well as for the use of OCR in MagniLink ChromeViewer.

8.5 Using the software

8.5.1 Camera

To launch a USB LVI camera you must either press the Connect button, on the far left of the menu bar under the Camera tab, or the *L* shortcut. A



dialog box containing a list of connected USB LVI cameras will then appear. Select the camera you want to start and then select Connect.

8.5.2 Functions via menus

The application consists of a window with tabs and groups of buttons. There is a tab for the application settings, a tab for handling the camera and a tab for Notepad. Depending on whether you have obtained a licence, there is also a tab for handling OCR-processed text.

8.5.2.1 Camera tab

The following tab varies in the range of buttons depending on the number of camera systems connected.





Connect LVI camera



Decrease magnification



Increase magnification



Lock Autofocus

Locks the autofocus mode. This feature is useful when you prefer to write by hand. The autofocus is not affected then by the pen or your hand. Press the button again to reactivate autofocus.



Focus up

Reduce focus distance. When this function is used, autofocus is turned off.





Focus down

Increase focus distance. When this function is used, autofocus is turned off



Reduce brightness/contrast



Increase brightness/contrast



Reference line/bar left/up

Adjust the position of the reference line. Press the button to move the reference line to the left. Hold the button in to change the reference line to horizontal and move it upwards. The reference line then becomes a vertical bar which diminishes the viewing area. To make the bar horizontal, press the button again.



Reference line/bar right/down

Same as the previous command but in the opposite direction.



Take snapshot

A "Save file as" dialog box opens. A file name (with the day's date and time) and a folder (Downloads) are automatically suggested. Just press "Enter" to save the picture. If you want to save the picture somewhere else, you can change this manually.



Start/stop video recording

Press to open the "Save file as" dialog box. A file name (with the day's date and time) and a folder (Downloads) are automatically suggested. Press Enter to save with the suggested name. If you wish to save the video in a different folder, or with another name, it is possible to change this in the dialog box. Stop recording by pressing the button again.







Rotates the camera image clockwise. To rotate anti clockwise, hold down Shift when you press the button.



Mirror the camera image

Press again to reverse the mirror image.



Freeze the camera image

Press again to release the freeze.



Whole image (Only shown if the system has a licence for OCR)

When this is active, the whole camera image is shown. Otherwise edit in the image, depending on how large the camera window is.



OCR processing

Performs an OCR conversion of the camera window.



Notepad

Opens images from the camera in the notes tool.



Heln

Opens the user guide in the standard application for showing PDF files.



8.5.2.2 OCR tab

The following tab is only shown if the system has an OCR license.





Open document (OCR conversion)

Opens a dialog box. From the dialog box, select the file you wish to open. It is possible to open image files in JPEG, PNG and PDF formats.



Import document

Import exported documents.



Export document

Export current document.



Save document

Save current document. The document will remain in the application, even on reboot, until you choose to delete the document.



Delete document

Delete the current document.



Play/Pause

Start/pause reading



Stop

Stops reading. The next reading will be from the start of the text.

















Back

Use this command to step back through the text. If the reading mode is set to word, you step back through the text word by word. If the reading mode is set to sentence, you step back one sentence at a time.

Forward

Use this command to step forward in the text. If the reading mode is set to words, you step forward in the text word by word. If the reading mode is set to sentence, you step forward one sentence at a time.

Reading mode

This command switches reading mode to be used when the "Back" and "Forward" commands are pressed. Possible modes are letter, word or sentence.

View Mode

Switches the display mode for OCR converted text. The view modes available are "page view", "row view", "word view", "image view", "image and word" and "image and row".

Font size

Used to change the size of the OCR text.

Speed

Changes the speech speed.

Help

Opens the user guide in the standard application for showing PDF files.



8.5.2.3 Notepad tab



The notes tool consists of three components.

- At the top is a menu bar with buttons.
- To the left is a list of pictures. By clicking on a picture, you can navigate to it. You can delete a picture by clicking in the top right corner.
- A surface where you can draw, enlarge and pan in the picture.



Open

Open image. It is possible to open images in JPEG, PNG and PDF formats.



Export

Exports note. It is possible to export the active note as an image file or all the notes as a PDF.



Save

Save current note. The note will remain in the application, even on reboot, until you choose to delete the note.



Delete

Delete the current note.



Ballpoint pen

Draw with a ballpoint pen.





Highlighter

Draw with a highlighter.



Text

Insert text. You can move text around after inserting. However, you must fist press on the inserted text with the **Text** tool.



Zoom & Pan

Magnify and pan the image.



Eraser

Erase.



Undo

Undoes latest entry.



Redo

Recreates after pressing undo.



Rotate

Rotate the image. NOTE! This deletes all entries.



8.5.3 Functions via the keyboard

Global keyboard shortcuts The following shortcuts apply to all tabs.

9 Information and settings window

Various settings for the application can be made in this

window.

Alt + 1 Go to the camera tab

Alt + 2 Go to the OCR tab

Alt + 3 Go to the Notepad tab

V Switch between tabs

Ctrl + H Hide or show the menu

8 Next window position

Press the 8 key repeatedly to switch between the preset split screen modes on the primary screen. The window can also be controlled via the mouse or

Chrome OS standard commands.

Ctrl + Plus Enlarge menu

Ctrl + Minus Reduce menu

Camera shortcut commands

The following shortcuts only apply to the Camera tab.

L Connect LVI Camera

Displays dialog to start the LVI camera connected.

1 Natural colours

Switches between natural colours and greyscale.

2 Positive image with enhanced contrast

Artificial colours; White/Black, Yellow/Black,

Green/Black, Red/Black, Yellow/Blue, White/Blue. Press 2 repeatedly to switch between the different colours.

(Shift + 2 to step backwards)

3 Negative image with enhanced contrast

Artificial colours; White/Black, Black/Yellow,

Black/Green, Black/Red, Blue/Yellow, Blue/White. Press 3 repeatedly to switch between the different colours.

(Shift + 3 to step backwards)

4 Start OCR

Start OCR with automatic reading. (Shift + 4 starts OCR

without automatic reading)



5 Add note

Add note and open Notepad. (Shift + 5 adds note but

does not open Notepad)

Up arrow Increase magnification

Down arrow Decrease magnification

J Autofocus Off/On

Shift + Up arrow Reduce focus distance

Shift + Down arrow Increase focus distance

Right arrow Increase brightness/contrast

Left arrow Reduce brightness/contrast

Ctrl + left arrow Reference line left/up

Ctrl + right arrow Reference line right/down

Ctrl + P Take "snapshot"

Press Ctrl + P to open the "Save file" dialog box. A file

name (today's date and time) and folder are

automatically suggested. Just press Enter to save the picture. If you want to save the picture somewhere else, or with another name, you can change this manually.

Ctrl + M Start/stop video recording

Press Ctrl + M to start video recording. Before

recording, a dialog box appears with the suggested file name (today's date and time) and folder. Just press Enter to start video recording. If you want to save the video recording somewhere else, or with a another name, you can change this manually. Stop the

recording by pressing Ctrl + M.

Ctrl + R Rotate camera image clockwise

Every time this key combination is pressed, the camera image will rotate 90° clockwise (90°, 180°, 270° and 0°).

Ctrl + Shift + R Rotate camera image anticlockwise

Every time this key combination is pressed, the camera image will rotate 90° anticlockwise (270°, 180°, 90° and

0°).

Ctrl + I Mirror camera image

Mirrors the camera image. This is a handy function if,

for example, you want to use the camera as a

magnifying makeup mirror.



Ctrl + F	Freeze camera image By pressing this key combination, the camera image freezes. To release the frozen image, press the same key combination again.
Ctrl + L	Full screen Switches between full screen and cropped image
OCR keyboard shortcuts	The following keyboard shortcuts only apply to the OCR tab
1	Play/pause reading
2	Stop reading
3	Previous word/sentence/letter
4	Next word/sentence/letter
5	Switch between navigation by words, sentences or letters
В	Change display mode
7	Reduce speaking speed
8	Increase speaking speed
Notepad keyboard shortcuts	The following keyboard shortcuts only apply to the Notepad tab
Ctrl + Z	Undo
Ctrl + Shift + Z	Redo
Ctrl + S	Save note
Del (Delete)	Delete note
Ctrl + R	Rotate image right
Ctrl + Shift + R	Rotate image left
1	Select ballpoint pen
2	Select highlighter
3	Select the text tool



4	Select the magnification and panning tool
5	Select eraser
Ctrl + 1	Previous colour of drawing tool
Ctrl + 2	Next colour of drawing tool
Ctrl + 3	Reduce size of drawing tool
Ctrl + 4	Increase size of drawing tool

8.5.4 Mouse control

Certain functions can be controlled with the mouse.

In camera mode.

- If the camera supports panning, the left mouse button can be used to pan the image.
- Zoom using the right mouse button.

In OCR mode

- The left mouse button is used to start the reading. You can also select a word to continue reading from the selected word.
- The scroll wheel can be used to enlarge or shrink the image.



8.5.5 Information and settings window

The Information and settings window consists of a number of different tabs that contain application information and alternative settings.

8.5.5.1 About the application

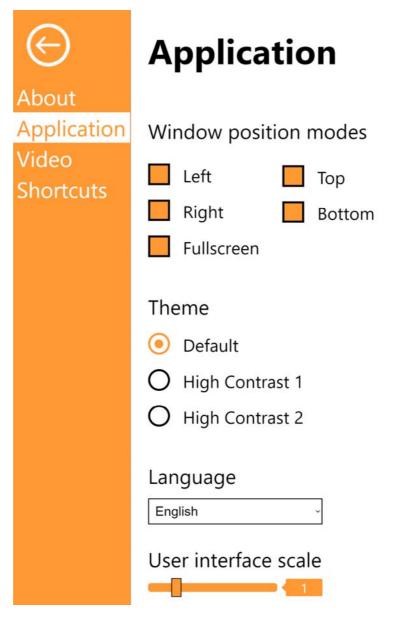


This tab contains information about software version, copyrights and license information.

If you want to activate an obtained OCR license to your Google account, this is where you log in and enter the license key.



8.5.5.2 Applications Settings



Window modes

Select which different window modes to be selected when pressing the 8 key.

Theme

Select the theme to be active. The theme controls which colour set the application should have.

Language

Change the language of the software. The software is set to use the same

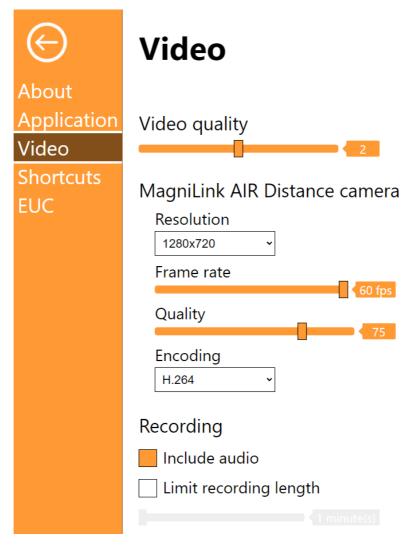


language as the computer's default. If this language is not available, English is automatically selected as default.

Menu size

Here you can change the size of the menus and buttons.

8.5.5.3 Video Settings



Video Quality

This setting allows the user to increase or decrease the video quality of the application. For the best balance between performance and quality, the setting should be left untouched, but it may be advisable to decrease for low-performance computers.



Resolution

Select from the camera's various resolution options. Resolution cannot be selected for all cameras.

Image rate

This setting allows the user to limit the image rate. The image rate cannot be changed for all cameras.

Image quality

This setting allows the user to limit the camera's image quality. The image quality cannot be changed for all cameras.

Record audio

Activate this function to record audio with a connected microphone.

Limit recording length

Activate this function to limit the recording length.

Length in minutes

If you have chosen to limit the recording length you can set the limit here in minutes, from 1 to 60 minutes.

MagniLink ChromeViewer can record video clips from a MagniLink camera system to WebM (.webm) format. The video recording is started using the keyboard (Ctrl + M). A red indicator is displayed at the bottom right of the video window while video is being recorded.



8.5.5.4 Settings for short cut commands



Shortcuts

Application

Open settings

Open the camera tab

Open the notepad tab

Toggle menu visibility

Next window position

Increase menu size

Decrease menu size

9

alt+1

alt+3

ctrl+h

8

ctrl+plus-sign

ctrl+minus-sign

Here the short cut commands used for the application can be changed. To change a short cut command, tab to the command that is to be changed and then press Space or Enter and then enter the new keyboard combination. If a combination already being used for another command is entered, the other command will be erased. A new keyboard combination will need to be entered in order to change the command.



8.5.5.5 OCR Settings



Voice

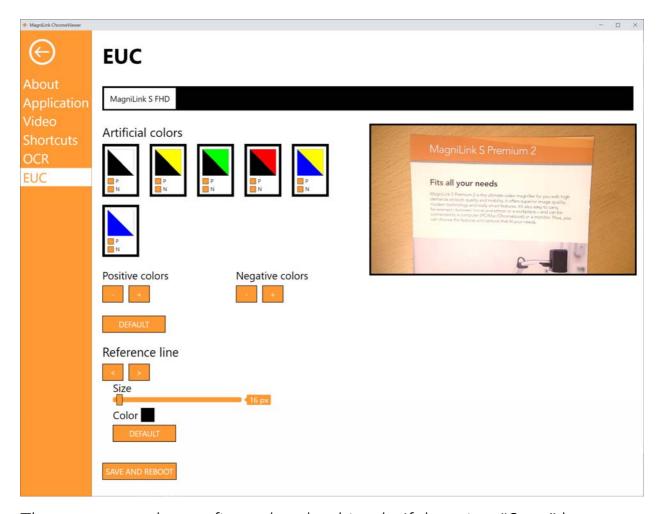
Select which voice to use for future OCR conversions.

Region

Choose which data centre should perform the OCR conversions. The closer to your current location, the faster the OCR conversions will be performed.



8.5.5.6 EUC



The camera can be configured under this tab. If there is a "Save" button at the bottom, it must be pressed to save the changes. When doing this, the camera restarts and the configuration has been saved.

Artificial colours

It is possible to remove and change the artificial colours of the camera.

- To remove either the positive or the negative component. Deselect box "P" or "N".
- To remove a colour combination, deselect both "P" and "N".
- To change a colour combination, press one of the triangular fields and a colour dialog will appear. Select colours and press OK.
- To restore the colours, press "Default".

Reference line

Set the size and colour of the reference line. Press "Default" to reset.



8.5.6 Quality of OCR conversion

In order to optimize the results of the OCR conversion, bear the following in mind.

- Ensure the magnification is sufficient. Very small text produces poor results in the OCR software. A minimum of 12pt is recommended for the lowest magnification of the reading camera.
- Avoid glossy paper as this gives reflections in the image. This
 impairs the results of the OCR conversion. If you intend to use
 glossy paper, we recommend that the light on the unit is switched
 off.
- Certain fonts can be difficult for the OCR engine to interpret.
- It is important that the text contrast is sufficient.



9 Ergonomics

Your reading camera is now ready to use. It is important that the workplace around your MagniLink is comfortable, and that you sit correctly. This is so that you can use the camera for as long as possible without putting undue strain and stress on your neck and back.

You should bear the following in mind:

- Your chair should be positioned close to the table on which the equipment is located, and you should not sit in the chair for too long. We recommend a good office chair with adjustable height.
- The seat of the chair should be at a height that does not cause your legs to become numb; legs should be at an angle of 90 degrees and you should rest your feet on the floor.
- The reading table should be at a height at which you can rest your lower arm horizontally on it. It is important that the table is neither too high nor too low for you. The ideal solution is if the screen is slightly below eye level and in as straight a line in front of you as possible.
- Shield off daylight. Lights in the ceiling, table lamps and light from windows can cause reflections on the monitor. For this reason, avoid placing lights where they shine directly at the screen or at yourself.
- If you use the device for long periods of time, there is a risk of repeated movements causing you pain in your neck, shoulders and back. Your eyes can also get tired from looking at a screen for too long.



10 Troubleshooting

No image is displayed on the screen after you start the system:

- Check that the power is on.
- Check that all connectors are properly connected as explained in the 'Installation' section.

The LED shines red for five seconds.

• The battery needs to be charged. Connect the mains adapter to the units to charge the battery.

It is not possible to start the system and the On/Off button flashes (orange/red).

• Press the On/Off button for more than six seconds to reset the system.

Never remove any panels or the casing in order to attempt to repair the system yourself. In the event of problems, contact your local dealer.



11 Technical information

Magnification, reading camera 1.1-70x (23" screen)

Camera resolution Full HD (1920x1080)

Monitor, resolution 1366x768 (18.5") widescreen (16:9)

1920x1080 (23") widescreen (16:9)

Computer, resolution 1280x720, 60Hz

1920x1080 30 Hz

Battery, operating time 5-9 hours

Battery, charging 2.5 hours

Battery, warranty period 1 year

Dimensions, collapsed 33x47x17 cm (13x18.5x6,7 in)

Dimensions, opened up 33x38x52 cm (13x15x20,5 in)

Weight 4.2 kg (9 lb 15 oz)

Power source Battery or AC

Acceptable temperature ranges Transport and storage -20°C - +60°C

68°F - 140°F

Operation: $+5^{\circ}C - +35^{\circ}C$

41°F - 95°F





Disposal of old electrical and electronic equipment (applies for EU countries and all other European countries that have specific collection systems)

If the product or its packaging has this symbol on it, it is not to be handled as regular domestic waste. It should instead be deposited at a suitable collection centre for the recycling of electrical and electronic equipment. By ensuring that this product is properly taken care of, you are helping to prevent the negative impact on health and the environment that might otherwise result from inappropriate disposal of this product. Recycling helps in the management of our natural resources. For more detailed information regarding the recycling of this product, you can contact your municipality, your waste management company or the store where you purchased the product.



12 Declaration of Conformity

DECLARATION OF CONFORMITY

Manufacturers name:		LVI Low Vision Inte	ernational AB
Manufacturers Address:		Verkstadsgatan 5	
		S-352 46 Växjö Sweden	
Web:		http://www.lviglobal.se	
SRN (Single Registration Number):		SE-MF-000004178	3
Basic UDI-DI (GMN):		7330724MLPROY	9
Brand name or trademark:		MagniLink	
Product code:		ML-PRO-FHD-	
Classification:		Class 1	
Type of equipment:		Reading Aid	
Conformity assessment route:		LVI Low Vision International AB uses the following procedures for the CE-labeling of their products according to the Regulation MDR 2017/745:	
		<u>Class [1]:</u> EC conford Annex I + Annex II +	mity declaration according to Annex VII
hereby declare that he med	dical device(s) specifie tes. This declaration is orting documentation	d above meet the prov supported by the Qua	
Date	Signature		Position
20-05-2021	- Hthe	M	Managing Director
	Clarification		
	Henrik Blomdahl		



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