

User Manual

MagniLink Zip PREMIUM



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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 Introduction to MagniLink Zip

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

MagniLink Zip is a video magnifier designed for people with visual impairment. The video magnifier offers features including autofocus, several artificial colours, the option of switching the magnifier between reading mode and distance mode and the option of adjusting the brightness. MagniLink Zip has a height adjustable screen and it is also possible to collapse your MagniLink Zip when the system is not being used or for transportation.

MagniLink Zip is available in several different models. Choose a model in the following steps.



Choose reading camera HD or FHD. Choose monitor size 13" or 17".

Model	Monitor size	Camera
MLZ-HD-13	13"	HD
MLZ-HD-17	17"	HD
MLZ-FHD-13	13"	FHD
MLZ-FHD-17	17"	FHD

Choose among the following accessories.

Product code	Accessory
A	MagniLink ZIP integrated A3 reading table with friction brakes X/Y
B	MagniLink ZIP battery
C	HDMI/USB connection
D	Software WIN / MAC for computer connection, including HDMI/USB
E	TTS Software WIN, including HDMI/USB
F	TTS Software MAC including HDMI/USB



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.
- The product contains a neodymium magnet. This is a potential risk for a user with a pacemaker. If the magnet gets too close, its magnetic field can interfere with the operation of the pacemaker.
- Only use the battery supplied with the product. If the battery needs to be changed, please contact LVI.
- 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.
- Be careful not to catch your fingers when collapsing the product or when adjusting the position of the screen. Do not place any objects on the reading table when the product is collapsed as they can damage the screen.

- Collapse your MagniLink Zip when it needs to be moved. Always lock the reading table and do not lift the screen or reading table as these are moving parts.
- 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.
- Serious incidents that have occurred in connection with the product shall be reported to the manufacturer and to the competent authority in the Member State where the user is established.

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.

3.4 Battery

- The product uses a lithium-ion battery. These batteries contain metals such as lithium, nickel, and cobalt, which can be harmful to the environment if not handled properly. Improper handling may cause the battery to catch fire or leak substances that are hazardous to both humans and animals. By recycling the battery correctly, you reduce environmental impact and help recover valuable materials.
- We recommend contacting LVI to obtain the correct replacement battery and instructions if you are unsure.
- When disposing of the product, the battery must be removed and treated as hazardous waste. Cover the battery terminals with electrical tape to prevent short circuits and place the battery in a plastic bag before disposal. The product itself should be disposed of as electronic waste.
- Discharge the battery through normal use before recycling, if possible. This reduces the risk of fire. Never attempt to short-circuit or puncture the battery.

4 Unpacking

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

- Reading camera
- Power adaptor
- Carrying case
- User Guide

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, take out the MagniLink Zip and remove the white packaging. For further information 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 (EPE)
- 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

The following accessories can be ordered.



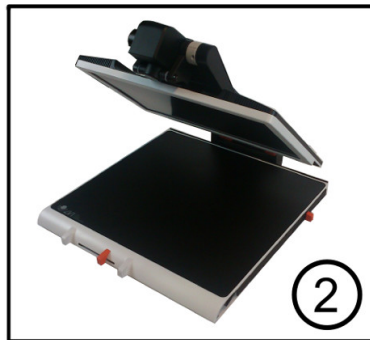
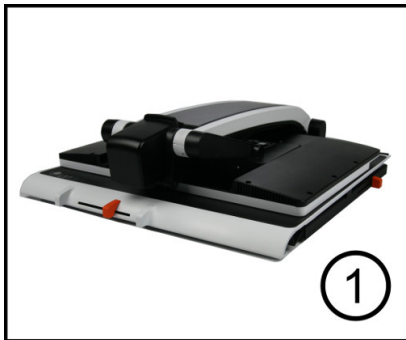
Dockable reading table with friction brake X/Y (**MLRT-XY**).



Text To Speech for PC (**TTS-PC**), Mac (**TTS-MAC**) or Chromebook (**TTS-CHROME**).

6 Installation

Open your MagniLink Zip



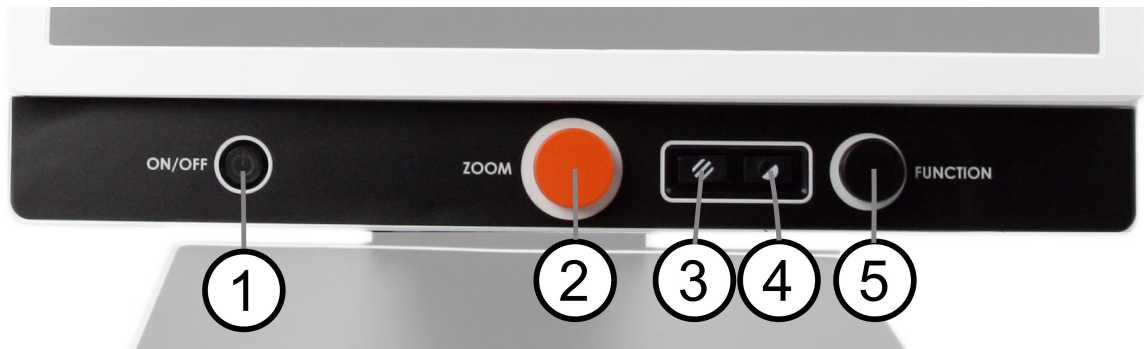
1. Place your MagniLink Zip far enough in on the table in front of your seat, but at least 10 cm from the edge of the table. Remember that the reading table can be pulled out approximately 30 cm in three directions. MagniLink Zip has a low total weight. Therefore, it is very important to place the system in the right place on your 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 until you hear it click into place.
3. Turn the screen up to the desired position. When you do this, the camera will automatically move into the right position.



4. Connect the mains adapter to the rear of the unit and to the wall socket. The unit is now ready to be used.

7 Use

7.1 Panel



1. Power on/off with LED

Press to start or shut down the system. Press for more than six seconds to do a reset. 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. If the unit was on when the battery started to be charged, the LED flashes yellow every five seconds.

2. Magnification control

Used to set the magnification. To reduce the magnification, turn anticlockwise and to increase the magnification, turn clockwise. Press the button to reduce the magnification to overview mode. Press the button again to restore the magnification.

3. Picture mode

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

4. High contrast mode with artificial colours

Press the button to switch between the various colour combinations.

5. Function control

In normal mode, this control is used to set the light level. When the controller is pressed down, you enter a menu in which further settings can be made.

7.2 Menu

The menu is opened by pressing the function control. In order to navigate in the menu, turn the function control. The current mode is displayed on the screen. After 30 seconds of inactivity, the system returns to normal mode.

1. **Autofocus** ("AF-ON" or "AF-OFF" is displayed on the screen)
In this mode, you can press the function control 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 control to mirror the image.
3. **Focus** ("FOCUS" is displayed on the screen)
In this mode, you can press the function control. When you do so, "F-SET" is displayed on the screen and it is then possible to set the focus mode manually by turning the function control. Manual focus may, for example, be useful for inspection. When this has been done, press the function control again to return to the menu.
4. **Reference line/Bar** ("REFLINE" is displayed on the screen)
Press the function control in this mode and "SELECT" is displayed on the screen. Then turn it to choose between vertical reference line, horizontal reference line, vertical bar or horizontal bar. Then press the control. "R-SET" is then displayed on the screen and it is possible to set the mode for the reference line or bar by turning the control. When this has been done, press the control again to return to the menu.
5. **Lighting** ("LAMP" is displayed on the screen)
Press the function control 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 turning the function control. When you are satisfied with the brightness, press the function control again to return to the menu.
6. **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 function control. It is then possible to select the time by turning the function control. When you are satisfied with the setting, press the function control again.

To turn on the lamp and screen again, it is sufficient to move your hand under the camera.
7. **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 function control. It is then possible to select the time by turning the function control. When you are satisfied with the setting, press the function control again.

8. **Screen brightness** ("SCREEN" is displayed on the screen)

In this mode, you can press the control to adjust the screen's brightness. "B-SET" is displayed on the screen and it is possible to reduce or increase the brightness by turning the control. When you are satisfied with the brightness, press the control again to return to the menu.

9. **Battery status** (Battery symbol is displayed on the screen)

In this mode, the current battery status is displayed on the screen.

10 **Language** ("OSD" is displayed on the screen)

In this mode, you can set the language in the menu. Press the function control. It is then possible to select the language by turning the function control. There are four languages: English (ENG), German (DEU), French (FRA) and Spanish (SPA). When the desired language is displayed, press the function control again to save the language setting.

11. **Normal mode** ("EXIT" is displayed on the screen)

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

7.3 Basic mode

It is possible to switch between basic mode and a mode with full functionality. To switch, do the following.

1. Press and hold button 4.
2. Press and hold button 3.
3. While the buttons 3 and 4 are held, press button 5 once.

Basic mode is perfect for users who want the simplest possible reading camera. The functions available are on/off, magnification control, picture mode, high contrast mode and contrast adjustment. Full functionality mode offers a wide range of additional options. For more information, see *7.2 Menu, page 9*.

7.4 Reading table



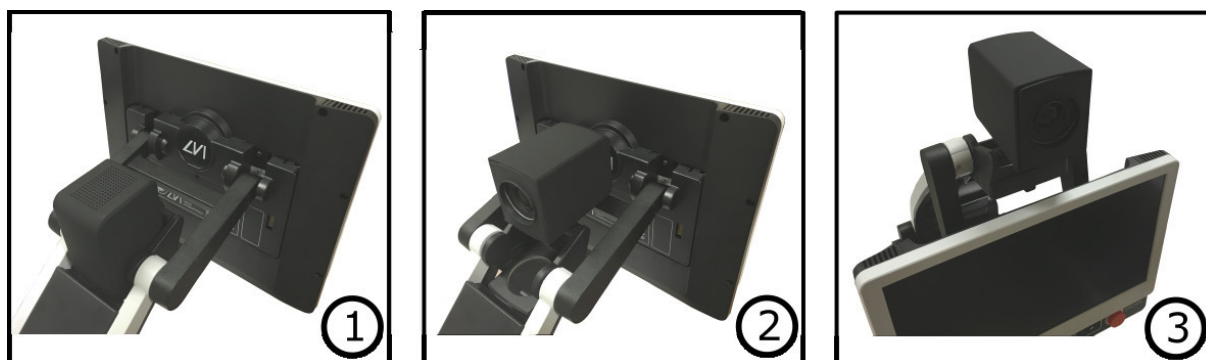
1. Side way direction friction adjustment

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.

7.5 Camera



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, it is possible to lower the screen and turn the camera to a mirror mode (3). 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

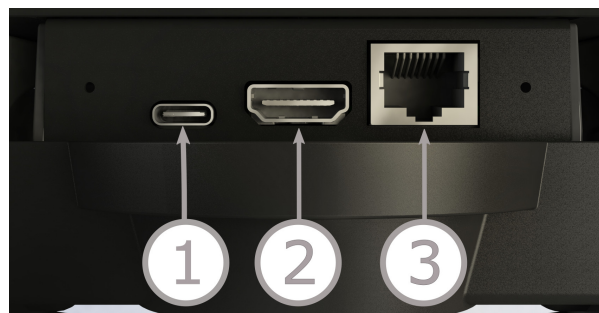
- Brightness/Contrast
- Reference line/Bar
- Mirroring of camera image
- Focus settings

7.6 Battery

The following applies to the MagniLink Zip 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.

7.7 Connections

If the system was ordered with HDMI/USB connection then there are three connections on the back of the screen. To access the connections you must remove the plastic cover.



1. USB-connection

Can be used together with the MagniLink S software to transfer the camera image to a computer. It is also possible to configure the magnification range, artificial colours and more with the EUC-software.

2. HDMI-connection

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

3. External control box

An external control box can be connected here.

8 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.

9 Troubleshooting

No image is displayed on your MagniLink Zip 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 to the left of the start button shines red for five seconds.

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

It is impossible to start the system and the on/off button is blinking (red/orange).

- Press the on/off button for more than six seconds and release it to do a reset.

Never disassemble any covers to try to repair the system yourself.

10 Technical information

MagniLink Zip with a 13" screen.

Dimensions collapsed	330 x 450 x 90 mm (W x D x H)
Dimensions, opened up	330 x 450 x 510 mm (W x D x H)
Dimensions of packaging	460 x 605 x 240 mm (W x D x H)
Weight	4.4 kg
Monitor, resolution	1600 x 900
Camera, resolution	720p/1080p
Magnification	1.3x – 35x (HD), 1.1x – 35x (FHD)
Luminance	300 cd/m ²
Screen display	LCD
Response time	12 ms
Contrast	500:1
Colour depth	18 bit
Power	14-20 W (40 W during charging)
Power consumption, standby	0.1 W

MagniLink Zip with a 17" screen.

Dimensions collapsed	440 x 470 x 120 mm (W x D x H)
Dimensions, opened up	440 x 470 x 560 mm (W x D x H)
Dimensions of packaging	575 x 660 x 265 mm (W x D x H)
Weight	5.1kg
Monitor, resolution	1920 x 1080
Camera, resolution	720p/1080p
Magnification	1.7x – 45x (HD), 1.4x – 45x (FHD)
Luminance	300 cd/m ²
Screen display	LCD
Response time	12 ms
Contrast	650:1
Colour depth	18 bit
Power	14-20 W (40 W during charging)
Power consumption, standby	0.1 W

General characteristics

Frame rate	60 Hz
Mains voltage	100-240 V, 50-60 Hz
Focal range	0-60 mm at maximum magnification)
Lighting	LED
Battery, type	Lithium ion
Battery Capacity	65 Wh
Charging time	2,5 hours
Battery Life (Usage)	Up to 5 hours (13") or 4.5 hours (17")
Battery life (use)	Up to 45 hours
Battery weight	322 g
Warranty period battery	1 year
Free working height beneath the camera	280 mm
Relative humidity	<80%
Temperature range	Transportation & Warehousing: -20°C - +60°C In use: +5°C – +35°C



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.

11 Declaration of Conformity

DECLARATION OF CONFORMITY

Manufacturers name: *LVI Low Vision International AB*

Manufacturers Address: *Verkstadsgratan 5
S-352 46 Växjö
Sweden*

Web: *http://www.lviglobal.se*

SRN (Single Registration Number): *SE-MF-000004178*

Basic UDI-DI (GMN): *7330724MLZES*

Brand name or trademark: *MagniLink*

Product code: ***MLZ-HD-13, MLZ-HD-17
MLZ-FHD-13, MLZ-FHD-17***

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:*

*Class [1]: EC conformity declaration according to
Annex I + Annex II + Annex VII*

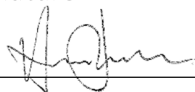
This declaration of conformity is issued under the sole responsibility of LVI Low Vision International AB. We hereby declare that the medical device(s) specified above meet the provision of the Regulation (EU) MDR 2017/745 for medical devices and Regulation (EU) 2023/1542 concerning batteries. This declaration is supported by the Quality System approval to ISO 9001 issued by Intertek. All supporting documentation is retained at the premises of the manufacturer.

☒ Manufacturer ☐ Manufacturer's authorized representative

Date

20-05-2021

Signature



Position

Managing Director

Clarification

Henrik Blomdahl

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