

# User manual

## MANO 5

EN



Please read this user manual carefully prior to installation, use and maintenance for your own safety and in order to avoid damages on your system.



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## **I. General Information**

Important notes on the operation of the electronic magnifier MANO5.  
Please read them carefully prior to the operation of the electronic magnifier!

### **Directive 2014/30/EU electromagnetic compatibility (EMC)**

This electronic magnifier is suited for use in all set-ups including the domicile that are connected directly to a public power supply for buildings with residential purposes.

This electronic magnifier is designed for the use in the indicated electromagnetic environment. The user should ensure the use in the indicated environment.

This electronic magnifier operates on HF-Energy exclusively for its own function. Therefore the emitted interference of high frequency disturbances is very low and the interference with other appliances operated close-by is improbable. When operating the reading system simultaneously with other systems, however, the possibility of disturbances of the system or other systems should not be neglected.

For this reason it should be ensured that the system is not placed directly beside or on top of another system. If the set-up of this system in the proximity of medical, measuring devices cannot be avoided, the operator of these devices has to be informed that it is necessary to observe the performance of the system to control the conventional use of the system in the chosen set-up.

Electronic devices are sensitive towards electric discharge and towards high frequency electromagnetic fields.

**Caution:**

In order to avoid high frequency disturbances (e.g. microwaves) the operator should respect a minimum distance of one meter/three feet to portable and mobile HF-telecommunication devices.

## **Storage of the user manual**

The user manual is an essential part of MANO 5. Please keep the manual in a safe place for future reference.

## **Product description**

MANO 5 is a system to magnify text and images with the following benefits:


- 5" LCD display (approx. 12.9 cm diagonal) with true color and up to 20 artificial color modes
- continuous magnification of approx. 4x to 20x
- ergonomic design with fold-out stand and optionally attachable handle, compact and easy to use
- the low weight of 210 g allows comfortable handling at home or on the go

## **Purpose**

The electronic magnifier MANO 5 is an audio/video, information and communication technology device, for magnifying text and images (e.g. in the office, at home and during leisure time).



## **Declaration of conformity, CE labeling**

 MANO 5 complies with the essential requirements of the Directive 2014/35/EU (Low Voltage Directive), as well as other relevant and applicable regulatory requirements and standards. You can review and/or download a copy of the declaration of conformity at [www.reineckervision.de/medien/konformitaetserklaerungen/](http://www.reineckervision.de/medien/konformitaetserklaerungen/) . You can also write a letter to Reinecker Vision GmbH, Sandwiesenstr. 19, 64665 Alsbach-Hähnlein, Germany, to request a copy.

## **Precautions by alteration of the performance of the device**

Should any of the technical features or performances change (failure, malfunction etc.), the device must be turned OFF and the battery must be taken out. **Please do not switch ON the device again.** Refer directly to your authorized dealer or to Reinecker Vision GmbH Service Center.

## **Cleaning of the system**

- Before cleaning, disconnect the unit from the power supply.
- Clean the device with a mild household cleaner and microfiber cloth.
- Do not allow any liquids to enter the device.

## **Reinstatement, installation and maintenance**

This device may be technically repaired and reconditioned by Reinecker Vision GmbH only or by an authorized technician.

## **Special advice for transport and storage**

For safety reasons, the unit must only be shipped in the original packing. The unit must be stored in dry and closed rooms in the original packing.

The following conditions for transport and storage have to be respected:

- Air pressure: 700 to 1000 hPa
- Temperature range: +5°C to +50°C
- Relative air humidity: 30% to 80%

## **Environmental notice according to 2012/19/EU**



MANO 5 contains electronic components. To avoid damage to the environment, the country-specific rules have to be respected.

## **Disposal or transfer of the device**

This equipment may retain user settings and stored images if disposed of or transferred. Prior to disposing or transferring MANO 5, remove all personal content from the device, as described in „Reset to default factory settings“ on page 30.

## **II. Safety instructions**

Please respect the following safety instructions:

1. Do not plug the AC adapter into a faulty electrical outlet. Doing so may cause electrical shock or fire.
2. Do not plug the AC adapter or power cord into a power outlet with wet hands.
3. Only use the power adapter which is included in the delivery by Reinecker Vision GmbH. The use of any other equipment might lead to a product damage.
4. If the device is intended for battery operation, only original parts may be used.
5. Do not expose the device to direct sunlight, as this would harm the picture quality.
6. Do not use this device below +10°C or above +35°C.
7. Keep liquids away from the system. Only operate the device in a dry environment.

8. The device may not be used next to medical devices (patients environment).
9. Do not twist or squeeze the screen or place heavy objects on the unit, as this may damage the unit. Be careful with sharp and pointed objects.
10. Do not try to repair or to dismantle the device by your own. This would automatically void the warranty. If you need any technical assistance please get in contact with the local distributor or with Reinecker Vision GmbH.
11. Always turn OFF the system and disconnect it from the power supply before cleaning it. Only use a soft and slightly damped cloth. Only use a mild household detergent. Do not use alcohol containing or strong detergents.

### III. Instructions

#### 1. Scope of supply

- MANO 5
- Li-Ion battery
- battery cover
- battery cover with handle
- carrying case
- USB cable with power adapters
- TV connection cable
- microfiber cloth
- quick start guide
- user manual

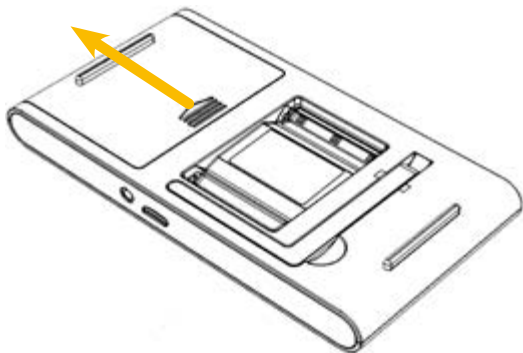
#### 2. Commissioning

##### Battery installation

Turn the unit to make the back face up.

Press the arrow icon on the battery cover and slide outward to open the battery cover.

Insert the battery to the right position in the battery slot.

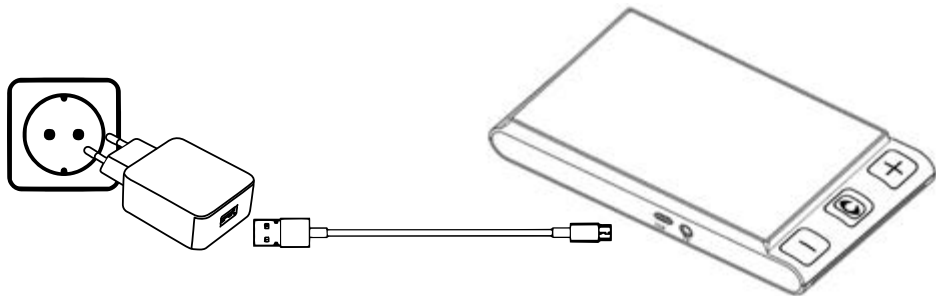


Place and slide back the battery cover.

## Charging the battery

Before using the device for the first time, you must fully charge the battery. Connect the supplied USB cable to the power adapter and connect the supplied USB cable to the USB-C port on the unit. Plug the power adapter into an AC outlet and start charging MANO 5.

**Caution:** The AC adapter supplied with the unit is designed to operate this system only. Do not use any other AC adapter.



## **Battery handling**

**Attention:** A prerequisite for a long life battery life time is the correct operation and charging of the battery.

- Make sure the battery is fully charged before first use of the system
- For charging, connect the power adapter with the USB-C port on the bottom of the system and plug it into an AC outlet.
- If MANO 5 is not in use for a longer period of time, the battery discharges automatically. Always check charging status to avoid complete discharge which would damage the unit.



## **Power indicator**

The symbol of the power indicator lights up in different colors, which can be used to indicate different charging states:

### **Device switched OFF, power supply connected:**

- Green power indicator: device is charging
- Power indicator OFF: device is fully charged

### **Device switched ON:**

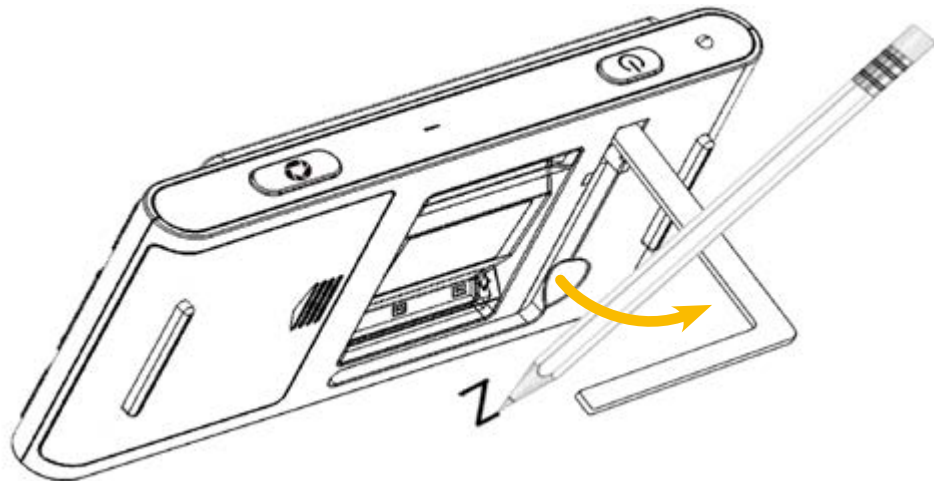
- Green power indicator:  
sufficient battery charge or power supply connected
- Red power indicator: battery almost empty, device needs to be charged
- Red power indicator flashing: device needs to be charged immediately

A full charge takes about 5 hours and will allow the unit to work for about 3 to 3.5 hours (depending on the operation mode).

The battery status can be checked by briefly pressing the power button. The displayed information will disappear automatically after a few seconds.

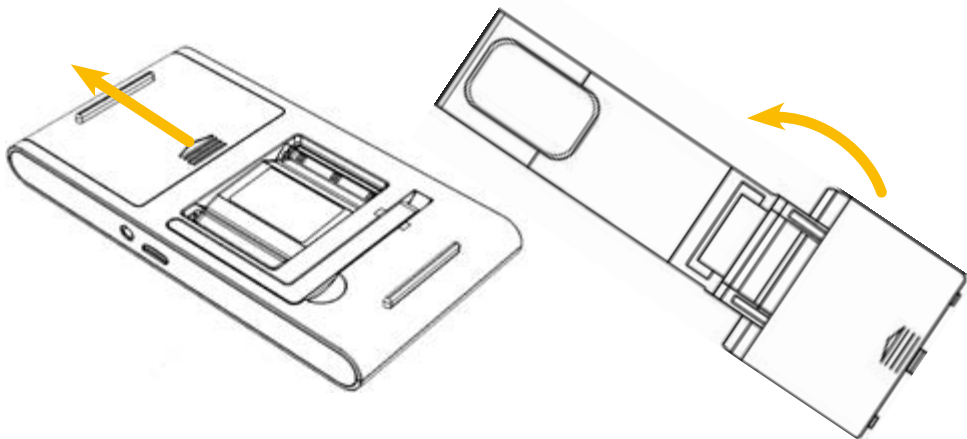
## Writing stand

Open the writing stand as the following figure shows. And you can write under the camera.



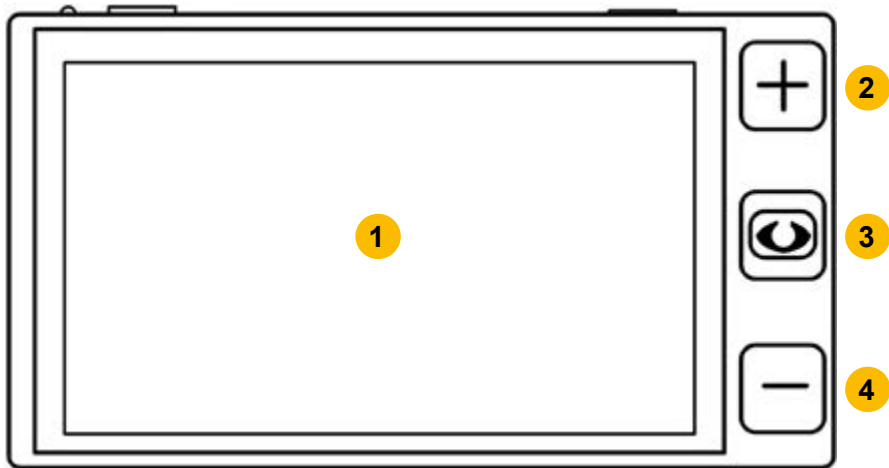
## Attaching the foldable handle

A foldable handle can be attached to the rear by replacing the battery cover. To do this, remove the battery cover as described on page 14. Unfold the cover with handle and slide it back until it clicks into place.

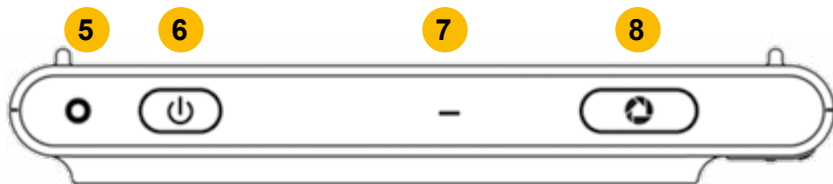


### 3. Operation Compositions

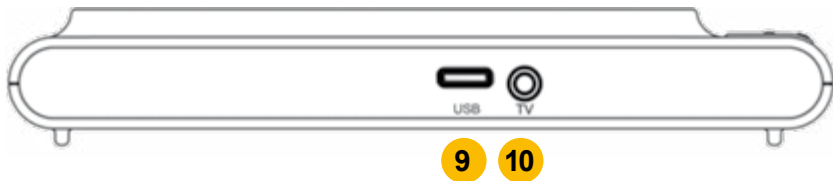
Front



## Top



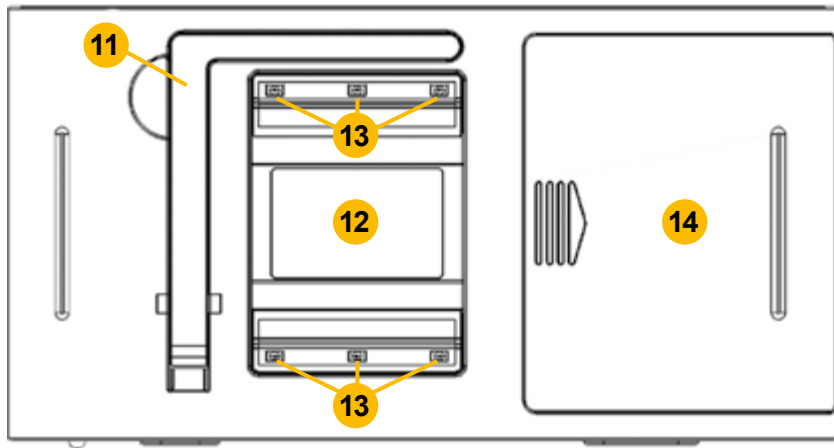
## Bottom



- 1) LCD display screen
- 2) zoom in
- 3) color mode
- 4) zoom out
- 5) status LED

- 6) ON/OFF button
- 7) loudspeaker
- 8) freeze image
- 9) USB-C port
- 10) TV port

## Back



11) stand  
12) camera

13) LED lighting  
14) battery compartment

## Turning ON/OFF



To turn ON MANO 5 press and hold the power button for approx. 3 seconds.

Press and hold the power button for approx. 3 seconds to turn OFF the device.

Briefly press the power button to view the status of the battery, color mode, freeze/live image, and the acoustic signals.

Press the power button in combination with other buttons to set certain functions (e.g. contrast).

## Acoustic signals

If this function is active, you will hear an acoustic signal for the following status messages:

- Device ON/OFF
- Pressing any button
- Threshold reached
- Battery low



Press and hold the freeze button for approx. 3 seconds to turn ON/OFF the acoustic signals.

## Magnification



Press the zoom in button to increase the magnification and the zoom out button to decrease it. Press and hold one of the zoom buttons to adjust the magnification continuously.

## Color modes

A color mode is a pre-defined color combination. Full color mode is suitable for viewing pictures or maps. Artificial color mode is a combination of contrasting foreground and background colors and can help to read more clearly.



Tap the color mode button to cycle between the different color modes. In the artificial color mode, you can return to the true color mode by pressing and holding the color mode button.

There are three different artificial color combination lists available. You can switch between them by long pressing the color mode button in true color mode.



The following color combinations are available in the different artificial color combination lists:

**1** **Simplified:**

true color mode

**F** white on black

**F** black on white

**2** **Standard (default setting):**

true color mode

**F** white on black

**F** black on white

**F** yellow on black

**F** black on yellow

### 3 Extended:



true color mode



		white and black
		white and blue
		green and black
		black and blue
		red and white

		black and yellow
		blue and yellow
		black and violet
		green and white
		red and black



## Brightness

Set the display brightness for full color mode and artificial color mode.  
The factory default value is highlighted in green.



 +  power button and zoom in button:  
increase brightness

 +  power button and zoom out button:  
decrease brightness


## **Contrast adjustment (artificial color mode)**

 +  Fine-tuning the combination of foreground and background color in an artificial color mode improves the image quality of different materials. The factory default value is highlighted in green. Press the power button and the color mode button simultaneously to change the contrast.

## **LED lighting ON/OFF**

 +  The LED illumination can be turned ON and OFF by pressing the power button and the freeze button simultaneously.



## **Freeze image**



 Freezing an image on the LCD screen can be useful for further reading, and also further zooming in or zooming out or changing the color mode for a better view. The brightness can't be adjusted in a freeze image.



Press the freeze button to lock the active image.

Press the freeze button again to release it.

You can move the magnified image as follows:

 +  power button and zoom + button:  
move image to the right or up

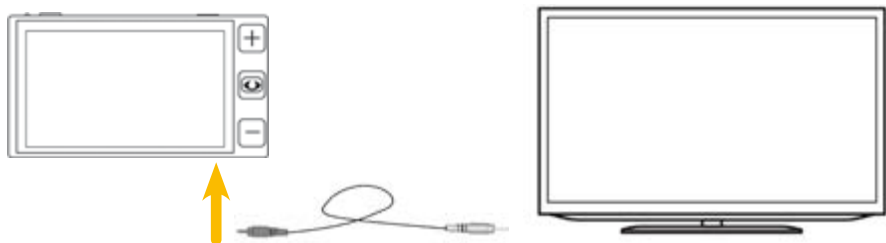
 +  power button and zoom - button:  
move image to the left or down


 +  If you want to switch from the horizontal direction of movement to the vertical direction, briefly press both the power and the color mode button.

While moving and zooming in/out, you can see an overview at the top left of the screen that shows you where you are currently located in the original image.

## Connection to a TV

You can connect MANO 5 to a TV. Insert the black plug of the TV cable into the TV output on the bottom of MANO 5. Connect the yellow RCA plug to the yellow composite input on your TV.



 Then select the correct output mode (PAL or NTSC) with the magnification buttons.

 Press the freeze button to confirm your selection.  
The display on the MANO 5 switches OFF.

After removing the TV cable, the picture is automatically played back on MANO 5.

## Memory

MANO 5 will memorize automatically the most recent settings, such as color mode, magnification, acoustic signals when power is OFF and recall them when the system is ON next time.

## Energy saving mode



If this function is activated, the unit will automatically turn OFF if there is no operation or movement for more than 3 minutes. Long press the power button and the color mode button simultaneously to turn this function ON or OFF.

## Reset to default factory settings



Press and hold the freeze button and zoom out button simultaneously for approx. 3 seconds to reset the current settings to the factory defaults. After resetting, the unit turns OFF automatically.

## **4. Troubleshooting**

### **The device cannot be switched ON**

- Connect the power adapter and charge the battery
- Check if the battery is inserted

### **The device cannot be switched OFF**

- Remove the battery and re-insert it

### **Black or white screen**

- When the device is placed on a flat, clean surface with no structure, the screen may be black or white. Lift the device up to test if the image changes.
- Change magnification
- Change color mode
- Restart the device
- With the TV cable connected, the screen is always black

## **The image does not change**

- Check if the unit is in freeze mode
- Press the power button to check the current status
- Switch the device OFF and ON again

## **Dirt or stains on the screen**

- Adjusting brightness
- Cleaning the LCD screen and camera

## **5. Warranty information**

1. Reinecker Vision GmbH grants a warranty of 24 months (warranty period only valid within the European Union) against defects in manufacture counted from date of invoice ex Reinecker Vision GmbH.
2. All parts that have been replaced when repairing the unit will automatically become property of Reinecker Vision GmbH.
3. Damage caused by improper use or by non-compliance with the operating instructions will result in the invalidation of the warranty.



4. Interventions from persons other than Reinecker Vision GmbH authorized specialists may lead to invalidity of warranty.
5. Partial warranty is valid for light sources serving to illuminate the reading object, batteries and other parts subject to wear and tear.
6. If a warranty claim is necessary, the system has to be returned to the manufacturer in Alsbach-Hähnlein or to your authorized dealer in the original packaging including all components. The manufacturer does not carry the cost for transport, packaging and insurance. You need to ask for an RMA ticket prior to return the unit. Please have the exact serial number before hand.

Phone number:  
+49 6257 9311-0

View our General Terms  
and Conditions.

**Your authorized distributor:**

## 6. Technical details

<b>type</b>	<b>MANO 5 (MANO5001)</b>
<b>screen</b>	5" LCD display with approx. 12,7 cm screen diagonal
<b>magnification</b>	approx. x4 to x20
<b>color modes</b>	true color, up to 20 artificial colors adjustable
<b>freeze image</b>	freeze image function,
<b>measurements</b>	WxHxD approx. 15.2 x 8 x 2.2 cm / 6 x 3.1 x 0,9 inch
<b>weight</b>	approx. 210 g / 7.4 oz
<b>operating time</b>	up to approx. 3 to 3.5 hours
<b>charging time</b>	up to approx. 5 hours
<b>power adapter (USB-C)</b>	Input: 110-240V; Output: 5V/1A



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Version 1.0, Stand 01/22, Art.-Nr. 000 10 288  
Änderungen und Druckfehler vorbehalten.

In case service is necessary, please contact your authorized distributor.

Bitte wenden Sie sich bei Fragen oder einem Servicefall direkt an unser Hauptwerk in Alsbach-Hähnlein oder an eine unserer Niederlassungen.

Bei im Ausland erworbenen Produkten kontaktieren Sie im Servicefall bitte Ihren dort ansässigen Händler.

