

Operating instructions

Phone-Imaging-Port



BAPIP2003231.0
23.03.2020
Version 1.0



Dear customer,

We are very pleased that you have chosen a device from the CJ - Optics product range. CJ products offer you the highest quality and the latest technology. In order to be able to take full advantage of the performance of the device and to enjoy your device for many years, please read these operating instructions carefully before commissioning and operate the device according to the instructions.

Please make sure that all persons operating the device have read and understood the operating procedure.

Keep the operating instructions in a safe place so that you can use them at any time if necessary.

If safety defects or problems occur, these must be reported to CJ-Optik. This must be done in writing to the company address. Please give us in advance by phone or e-mail to vigilance@cj-optik.de

This device must not be used in conjunction with measuring devices or for devices with navigation.



Company address:
CJ-Optik GmbH & Co. KG
Willeckstrasse 1
D-35614 Asslar
Phone: +49 (0)6441 / 8181 330
Fax: +49 (0)6441 / 8181 339
Email: info@cj-optik.de
URL: www.cj-optik.de

table of contents

1 Introduction.....	3
1.1 Notes on operating instructions	3
1.2 Purpose	4
1.3 Scope of delivery	5
1.4 Explanation of symbols	5
1.5 Transport and storage	6
2 For your safety	7
2.1 Liability for function and damage	8
3 Commissioning	9
4 Operation	10
4.1 Structure.....	10
4.2 Mounting Phone- Imaging-Port.....	11
4.3 Alignment Phone-Imaging-Port.....	12
4.3.1 Align camera to The Phone Imaging Port.....	12
4.3.2 Distance Smartphone to Phone-Imaging-Port.....	13
4.3.3 Determining the position of the smartphone	14
4.3.4 Image rotation.....	15
5 Help in case of malfunctions.....	16
6 Maintenance and cleaning	16
6.1 Maintenance.....	16
6.2 Cleaning.....	17
6.3 Recommended disinfectants.....	18
6.4 Hygiene plan.....	18
7 Service and warranty.....	19
7.1 Service.....	19
7.2 Warranty.....	19
7.3 Send in device	19
8 Specifications	20
9 Disposal	21
10 Notes	22

1 introduction

1.1 Notes on the operating instructions

This operating manual contains important information on how to operate the Imaging Port safely, appropriately and sustainably. This reading helps them to avoid dangers, as well as to reduce repair costs and downtime. This can increase the reliability and service life of the imaging port, among other things.

It is not only used for training or learning operators, but is also intended as a follow-up work. Reproduction, even in extracts, only permitted with the written permission of CJ-Optik.

The operating instructions must always be available near the imaging port.

Maintenance and safety controls, together with the professional application, ensure the operational safety and operational capability of the imaging port and are therefore, in addition to regular cleaning, indispensable. Repair work and safety-technical controls may only be carried out by CJ-Optik authorized personnel. By using original spare parts, you have the guarantee that the operational safety, operational capability and the value of your imaging port.



All assembly, service and repair work is reserved exclusively for authorized personnel.



Before the first commissioning, please read chapter 2.0
"For their safety" in order to avoid possible dangerous situations.



Care and safety controls together with the professional application ensure the operational safety and operational capability of the microscope.



The product "Phone Imaging Port" bears the CE mark in accordance with the EU Directive on Medical Devices 93/42/EEC and complies with the essential requirements of Annex I to this Directive.

1.2 Purpose

Name:	Phone Imaging Port
Purpose of use:	Optical interface between radiation divider and mobile phone Kamera. Standard ENT and dental examination Documentation of visual control from ear canal to eardrum, oral cavity to throat and nasal cavities, as well as dental applications (endodontics, etc.).
Targetgroup:	This manual is intended for use by doctors, nurses and other nurses who prepare, operate or maintain the device after appropriate instruction. It is the duty of the equipment manager/owner to instruct or instruct all employees who will use the system. Installations and service work not described in this manual may only be carried out by the specialists of CJ-Optik or by personnel specially trained for this purpose by CJ-Optik.
Specification of the main functions:	Redirected beam path from radiation divider to camera
Patient group:	Patients of all ages, without restrictions, who require a standard examination.
Application organ:	Oral cavity to the throat, ear canal to the eardrum, nasal cavity and dental applications (endodontics etc.).
Duration of use:	Application-specific, short-term.
Application environment:	The application environment is clinics, practices and operating rooms for phoniatrists, ENT and dental doctors. The use of the Imaging Port must only be used by medical specialist personnel.
Restrictions	No use in ophthalmology. When used in the operating room, only work with appropriate protective hood (drape)!

1.3 scope of delivery

Your Phone Imaging Port was carefully checked and carefully packaged before sending an in-depth functional test.

However, please compare the contents of the shipment to completeness immediately after receipt (see delivery note).

1.4 Explanation of symbols

	General warning sign		Observe instructions for use!
	manufacturer		Temperature Rel.
	humidity		atmospheric pressure
	serial number		This product complies with the relevant requirements of the EU directives
	enumeration		No household waste

1.5 Transport and storage

The Phone-Imaging-Port may only be transported in a padded and adequately protected shipping box.

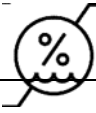
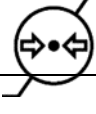
Transport damage should be documented and reported immediately.

Warning!



After transport at temperatures below freezing, the Phone Imaging Port must be stopped at room temperature for up to 48 hours before initial commissioning. If the Phone Imaging Port is not acclimatized, it must not be operated.

Environmental conditions:

For transport and storage		
Temperature Rel.	-10°C to +50°C	
Humidity (without condensation)	10% to 95%	
Atmospheric pressure	50 kPa to 106 kPa	

2 For your safety

- Before commissioning, the instructions of all other connected devices must be observed in principle!
 - Any commissioning and handling of the device requires precise knowledge and observance of these operating instructions.
 - The accessories may only be operated by trained personnel.
 - The device is intended for use only.
 - The accessories are not intended for operation within hazardous zones (M and G). Explosive areas can be caused by the use of combustible anesthesia agents, skin cleanse and skin disinfectants.
 - If liquid is injected into the accessories, the device must be sent in for inspection and may only be put back into operation after inspection by a person authorised by CJ-Optik.
 - After prolonged transport at temperature below the freezing point, the access must be left at room temperature for up to 48 hours before initial commissioning. If the accessories are not acclimatized, it must not be operated.
 - Make sure that the patient does not touch the device or come into contact with the device.
 - In the event of disturbances of any kind, the treatment must be interrupted immediately.
 - Dispose of the packaging material properly or send it to CJ-Optik.
 - The environmental conditions specified in the technical data must be taken into account.
 - A safety check must be carried out annually
 - The accessories may only be operated in medically used rooms, but not in potentially explosive and oxygen-enriched areas.
 - Also observe the operating instructions of your microscope and all attachments.
- When attaching or dismantling accessories, the microscope must be positioned in a parking position.
- CJ-Optik is not liable for personal injury and property damage if:
 - no original CJ optical parts are used,
 - the instructions for use of this instruction instruction are disregarded
 - Assembly, new hires, modifications, enhancements and repairs were performed by persons not authorized by CJ-Optik.

2.1 Liability for function and damage

Liability for the function of the device shall in any case pass to the owner or operator insofar as the device is improperly maintained, repaired or modified by persons who do not belong to an authorised specialist company, or if handling is carried out which does not correspond to the intended use.

The device must be serviced and operated in accordance with this operating instructions. CJ – Optik GmbH & Co. is liable for damages that occur by *non-observance* of the above information. KG not.

Warranty and Liability Conditions of the Terms of Sale and Delivery of CJ-Optik GmbH & Co. KG are not extended by the above notes.



Product liability expires in the event of modification of the device by the assembly and/or assembly of non-structural or unauthorized parts. Use in replacements only original CJ parts.

The operator of the device must provide the operator with the operating instructions and verify that the operator has read and understood them. Only then can the operator put the device into operation.

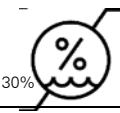
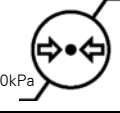


It is important to ensure that the operating instructions are accessible and understood at all times.

3 commissioning

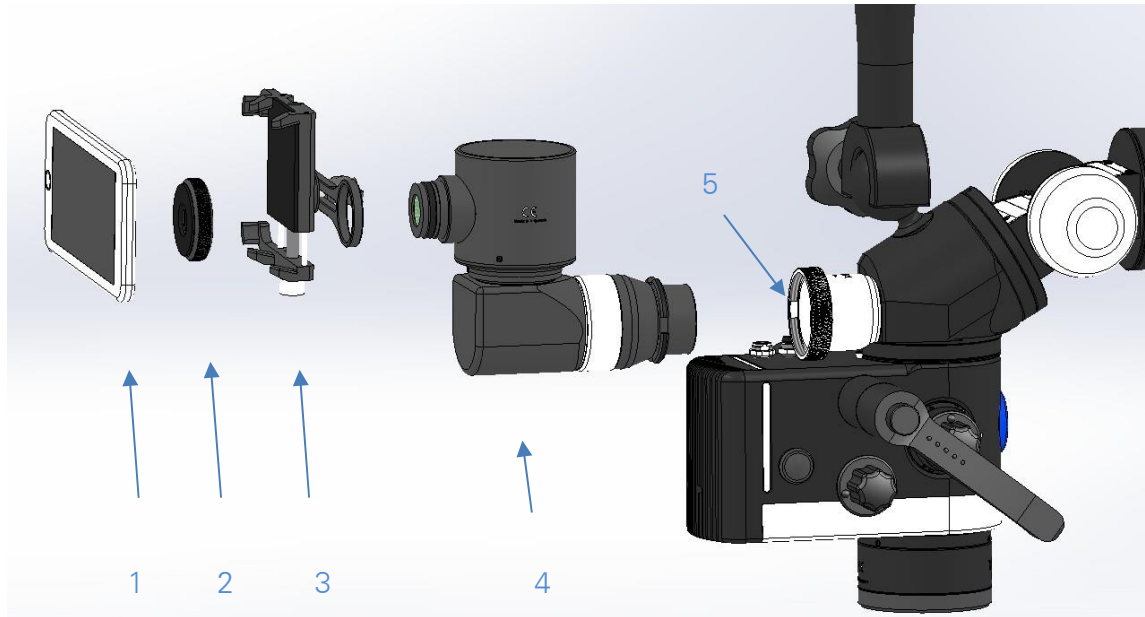
Remove the product from the packaging. Check the scope of delivery. Before first commissioning, be sure to take care of the safety instructions in section 2.0. After transport at cold temperatures, the product must be left at room temperature for at least six hours before initial commissioning. If the microscope is not acclimatized, it must not be operated. Store the device in a dry place for 48 hours at room temperature.

For operation:

For operation		
Temperature	+10°C to +40°C	
Humidity (without condensation)	30% to 90%	
Atmospheric pressure	70 kPa to 106 kPa	

4 Operation

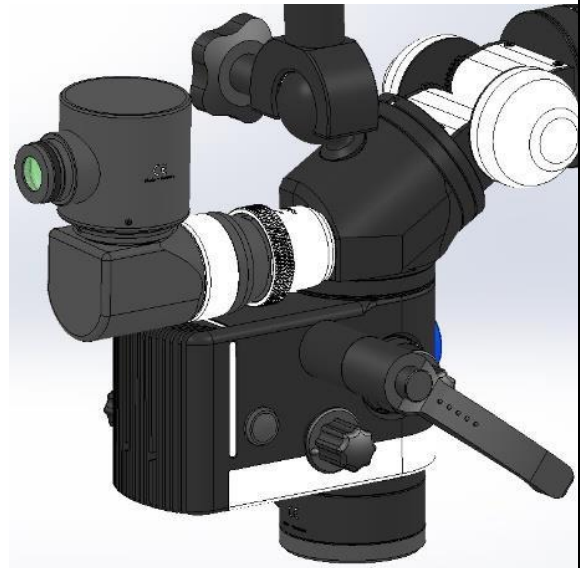
4.1 Construction



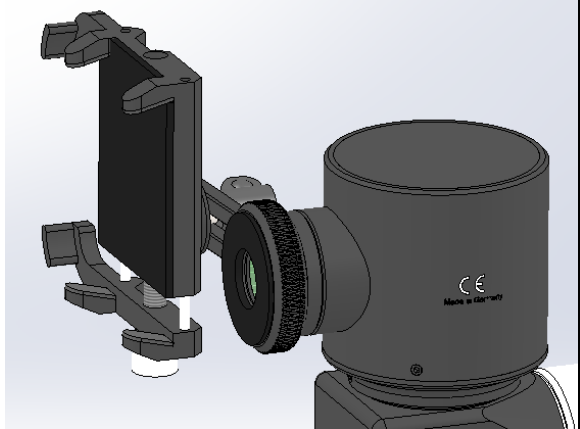
- 1 Smartphone
- 2 Knurled ring
For mounting the mobile phone holder on the Phone Imaging Port
- 3 Cradle
Universal bracket for smartphones
- 4 Phone-Imaging-Port
- 5 Microscope with Imaging-Port connection

4.2 Mounting the Phone-Imaging-Port

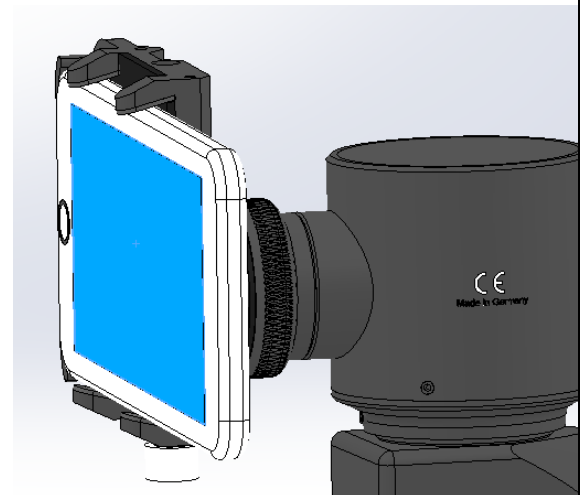
1. Remove the cover of the beam splitter and insert the imaging port into the opening. Tighten the knotring ring to avoid falling out of the Phone Imaging Port.



2. Place the phone holder on the imaging port and tighten the knotring.



3. Place your smartphone in the phone holder, make sure your smartphone isn't tilted and attach it to the holder. When attaching, do not tighten the bracket too tightly, otherwise your smartphone display could break.



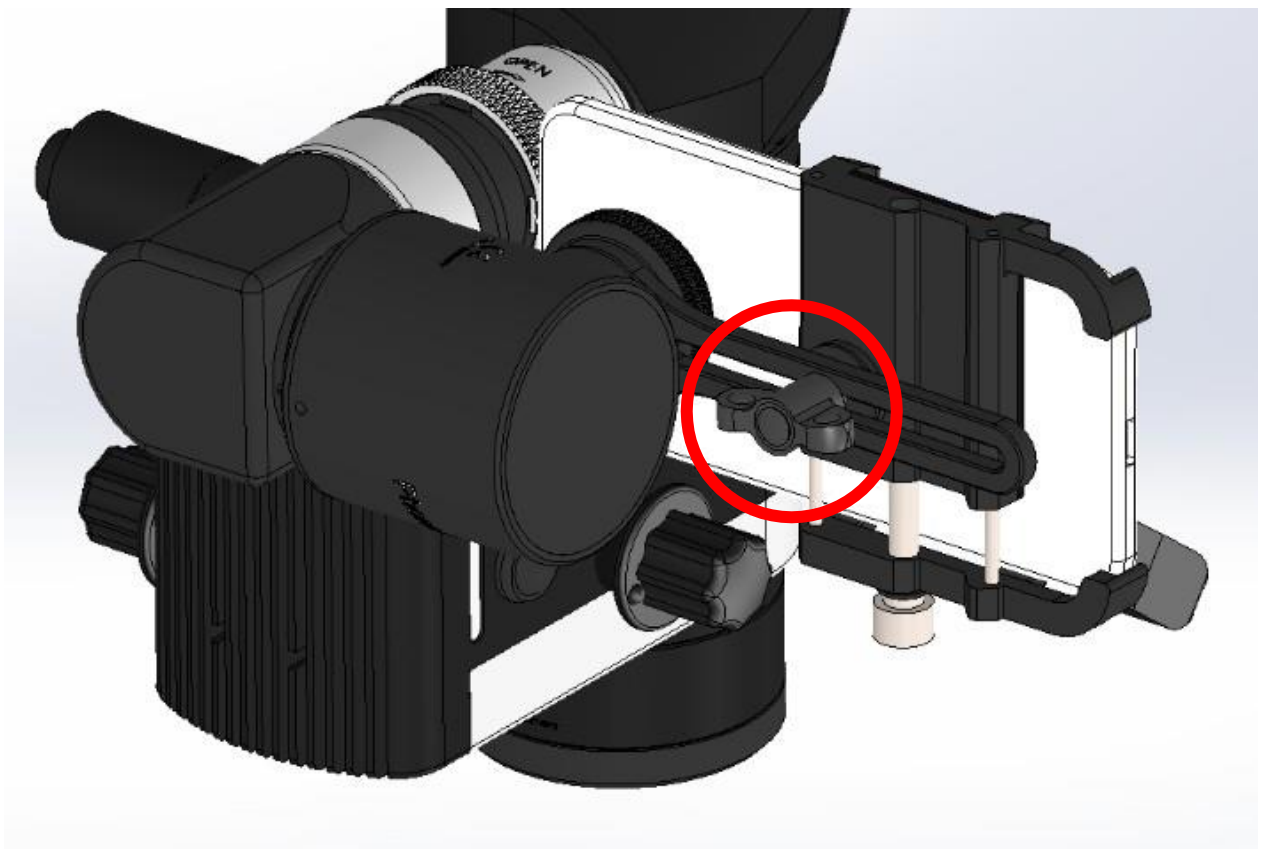
4.3 Alignment Phone-Imaging-Port

After you connect your phone-imaging-port with your smartphone together to the microscope- you have to align your smartphone to the microscope.

To do this, the illumination of the microscope must be switched on, the aperture must be opened and the magnification set to 0.4. We recommend pointing the microscope at a white sheet.

4.3.1 Align camera to the Phone-Imaging-Port

Open the camera of your smartphone and release the wing nut. The camera must now be set to the center of the imaging-port. If a one-sided edge is created in the camera image as on the image, the camera is not optimally aligned.

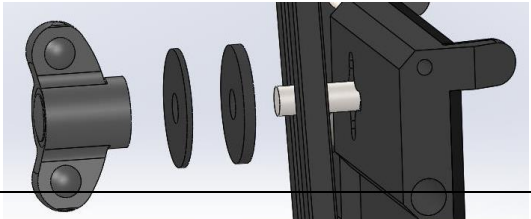
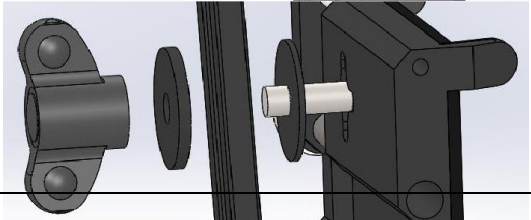
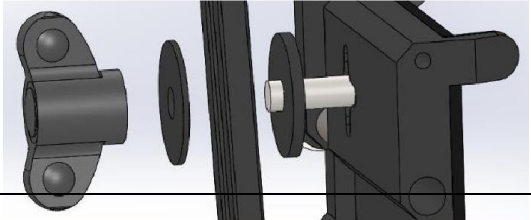
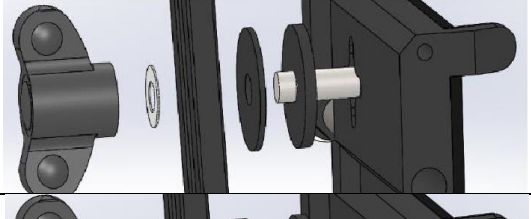
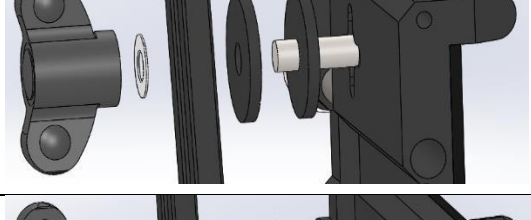
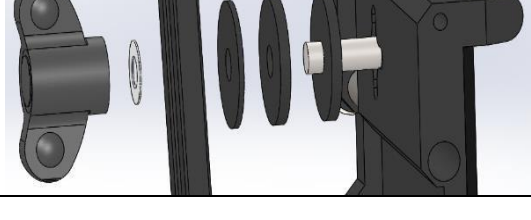


4.3.2 Distance Smartphone to Phone-Imaging-Port

Each mobile phone camera needs a different distance to the Imaging port. You can control this distance via the discs on the holder. If the border is even as in the image, the spacing must be changed. After the distance is set, the camera must be readjusted again to the center.

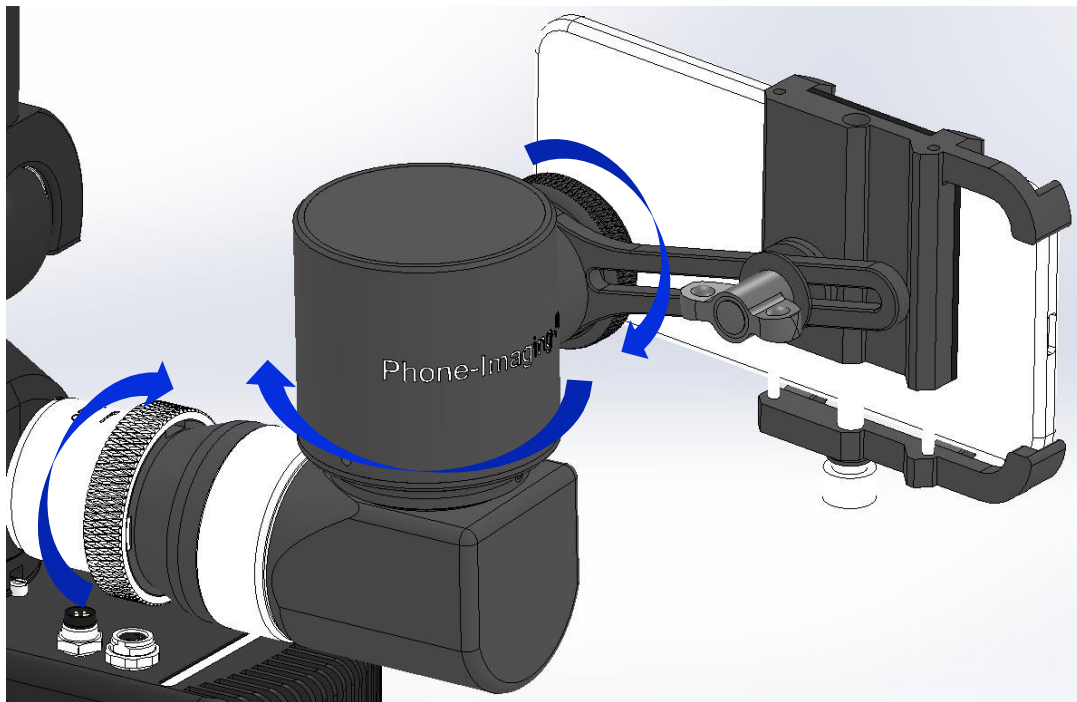
You have the following options to control the distance.



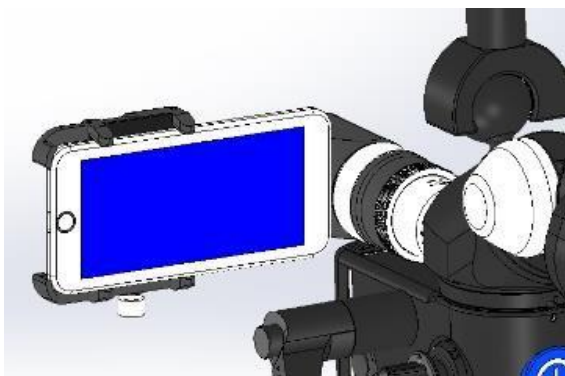
Without distance		
Distance 1 mm		
Distance 2 mm		
Distance 3 mm		
Distance 4 mm		
Distance 5 mm		

4.3.3 Determine the position of the smartphone

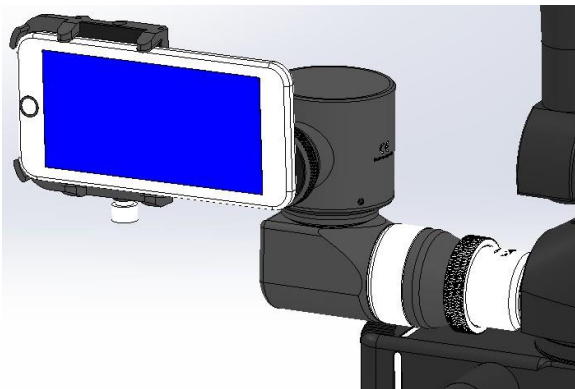
With the Phone-Imaging-Port, you have many options for positioning your smartphone. In the next image, you can see how to position your phone imaging port.



We recommend the following two variants.



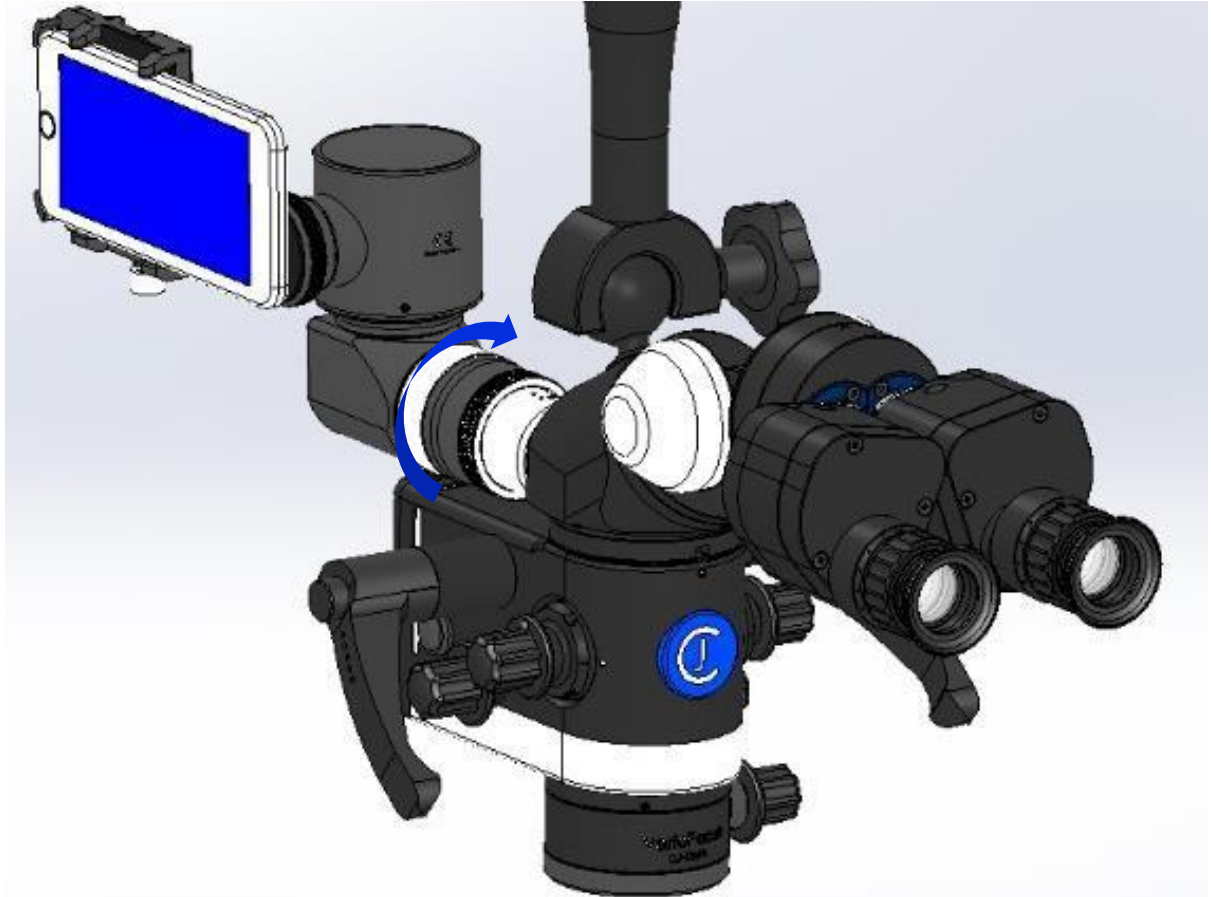
Smartphone display turned forward



Smartphone display turned to the side

4.3.4 Image rotation

Depending on the position of the smartphone, the image rotation must be recreated. You can set this by using the knotring ring, which can be seen in the following figure.



5 Help in case of malfunctions

Disturbance	Possible cause	Remedy	Note
Image fuzzy	Camera setting	Set your camera setting to AutoFocus or adjust the focus manually	Camera settings
Image twisted	Imaging Port Setting	Adjust the image rotation over the knurled ring	P.15
Picture Centre alignment	Imaging port not properly attached to radiation divider	Make sure the imaging port is properly attached to the beam splitter	P.12

6 Maintenance and cleaning

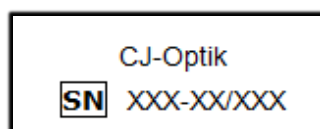
6.1 Maintenance

In order to ensure smooth operation, the device should be cleaned at regular intervals. The device does not require any chemical additives other than "normal" care (microfibre cloth, white cloths, disinfectants, distilled water).

However, care must be taken to ensure that the optical components are cleaned exclusively with a microfibre cloth. If there is any coarse contamination inside the device (can only happen in case of incorrect operation), do not clean the device yourself, but have it cleaned by a person authorized by CJ-Optik.



The type plate must always be in a readable state and must not be removed. During cleaning or maintenance work, the mains of the entire device must always be pulled and care must be taken to ensure that no verifications can enter the device.



6.2 Cleaning

External impurities from time to time with a moistened, soft cloth and then disinfect.

You can wipe all mechanical surfaces of the microscope wet. Do not use aggressive or grinding detergents.

To cover the device sterile, sterilization sleeves (drapes) can be used. Use the sterilization sleeves only once. In order to obtain sufficient freedom of movement for the microscope carrier and the device, you should wear the cloths as loosely as possible. The drapes should be particularly loose around the handle, as the surgeon has to operate the microscope through the cloth.

If aldehyde-containing and amine-containing disinfectants are used on the same object, this can lead to discoloration.



Cleaning agents can cause damage to the paintwork, labelling or even the optical components.



If liquid has penetrated into the microscope, it may not be put back into operation until after the over-checking by the authorized customer service.

6.3 Recommended disinfectants

Do not use

- Disinfectants with organic or inorganic acids or bases, as these can cause corrosion damage.
- Disinfectants containing chloramides or phenolic derivatives, as they can cause stress cracks in the material used for the housing.

disinfectant	Suitable for	
	case	Lens / Optics
Green & Clean SK		X
Kohrsolin® FF (Application Concentrate)	X	
Kohrsolin® extra (Application concentrate)	X	X
Mikrobac® forte (Application Concentrate)	X	
SaniCloth® Active	X	

6.4 Hygiene plan

what	how		when		hints
	cleaning	disinfection	After each application	daily	
case	X	X	X		Manual wiping and disinfection
Lens / Optics	X	X		X	Manual wiping and disinfection

7 Service and warranty

7.1 Service

Service or repairs may only be carried out by trained specialists. Only original parts are to be used in the replacement.

7.2 Warranty

The warranty period of our equipment is 24 months. If a defect in your device occurs during the service period, you will be directly binding with us.

The microscope may only be operated in a technically perfect condition. In the event of defects which could endanger employees or third parties, the advice may only be used again after repairs have been carried out.

Damages caused by improper use, external mechanical effects, transport damage as well as unauthorized interference with the device by non-authorized persons are not covered by this warranty.

7.3 Submit the device

- Remove and dispose of consumables professionally
- Clean and disinfect the product and accessories according to the operating instructions
- Complete the return form
- Pack the product well padded with suitable packaging
- Attach the return form
- Glue the shipping bag outside onto the packaging
- Send the product to CJ-Optik or your dealer
- Please send an information to CJ-Optik before returning

8 Technical data

Environmental conditions Transport / storage	-10...+50°C 10...95% humidity without condensation Pressure 50...106 kPa
Environmental conditions Operation	+ 10.. . +40°C 30...90% humidity without condensation at air pressure 70...106 kPa
Weight	300-500g
Recurring safety checks (STK)	A safety check must be carried out annually in accordance with the accident prevention regulations. CJ-Optics recommends an annual inspection.
Risk classification in accordance with Annex IV EC Directive 93/42/EEC	Class I (according to Rule 1)
CE marking	CE
Suitable for operation up to an altitude above sea level of:	≤ 3000m
Item number REF Phone Imaging Port	205-000-0000

9 Disposal

Improper use of waste can have a negative impact on people and the environment. The Imaging Port does not contain hazardous goods. The housing material is fully recyclable. Make sure you have careful material separation. Observe country-specific disposal regulations (e.g. waste incineration).

Disposal in the EU

The device described above is a high-quality medical product with a long lifespan. After the end of a life cycle, the device must be disposed of in a professional manner. According to the EU directives (WEEE and RoHS), the device must not be disposed of via general household waste. Please observe the laws and regulations in force in the respective country, which exist for the disposal of old microscopes.

Disposal in Germany

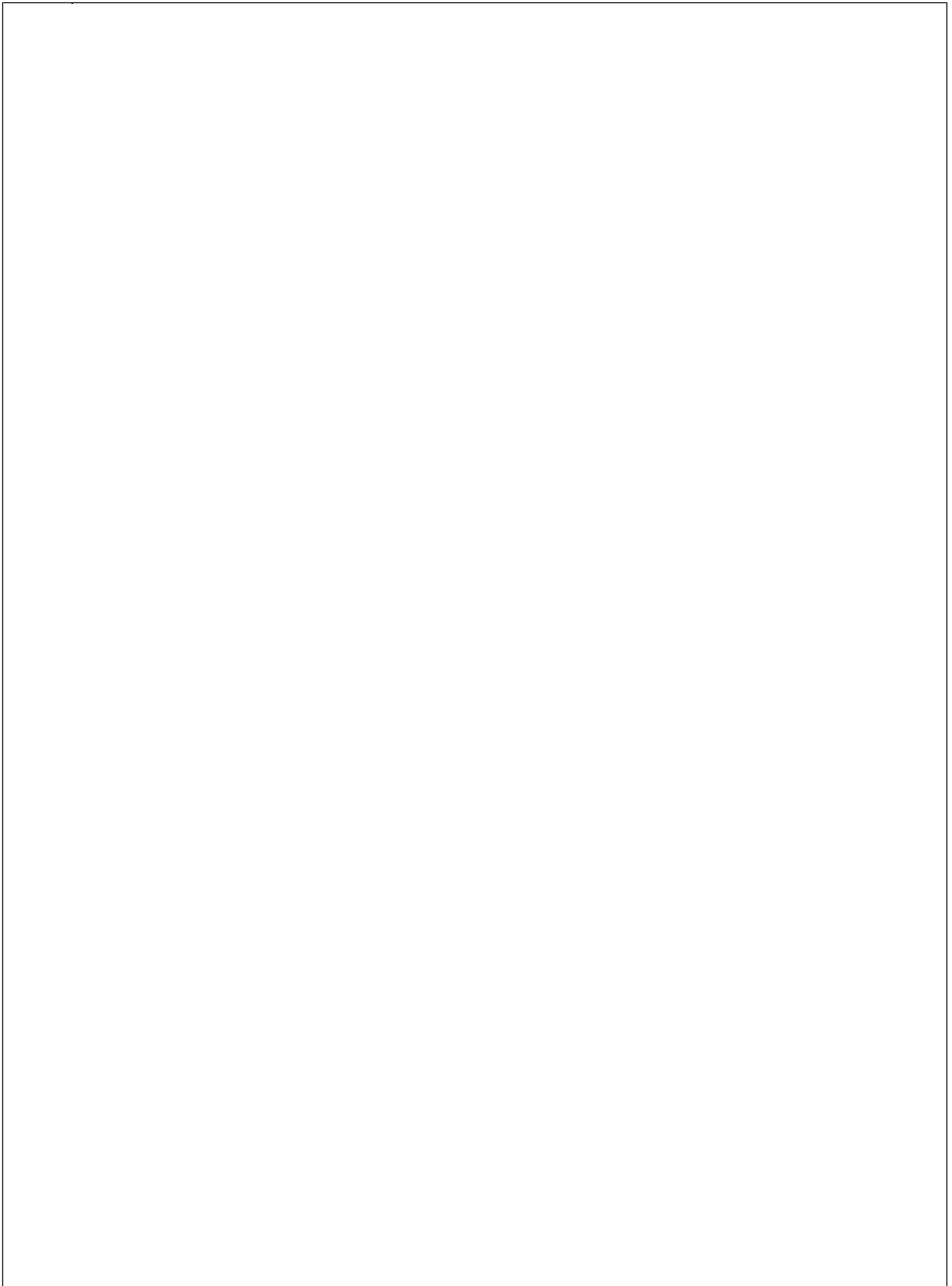
Within Germany, the Electrical Act (ElektroG) regulates the disposal process of electro-old microscopes. It must be assumed that this device may be infected. For this reason, according to the regulations of the EAR (Foundation Of Electro-Old Microscopes Register), this type of device is excluded from the ElektroG. In order to ensure proper disposal, either leave the device to your competent dealer or send it directly to CJ-Optik for proper disposal.

Before disposal or before transport, the device itself must undergo surface disinfection.



Disposal via household waste is prohibited.

10 Notes





Company address:
CJ-Optik GmbH & Co. KG
Willeckstrasse 1
D-35614 Asslar
Tel: +49 (0)6441 / 8181 330
Fax: +49 (0)6441 / 8181 339
Email: info@cj-optik.de
URL: www.cj-optik.de