

CE

Please carefully read this manual before operating.

iSee 9000 Surgical Microscope Instruction Manual

Guilin Kevin Peter Technology Co., Ltd.

Introduction

Thank you for purchasing our iSee 9000 Surgical Microscope. Please read this instruction carefully for the sake of your better use.

General Requirement for Safety

Please read carefully about following precautions to avoid unexpected personal injury as well as the product being damaged and other possible dangers.

Precautions

- 1. Do not use this instrument in the environment where is prone to fire and to blast or where there is much dust and high temperature. Use it in the room and simultaneously be careful to keep it clean and dry.
 - 2. This instrument can't be exposed to corrosive liquid and gas.
- 3. Check that all the wires are correctly and firmly connected before use. Ensure that the instrument is well grounded.
 - 4. Please pay attention to all the rating of the electrical connecting terminal.
- 5. Please only use fuse according to the specifications and rated stipulated by our product.
 - 6. Use the power cable supplied with this instrument.
 - 7. Don't touch the surface of the lens and prism with hand or hard objects.
 - 8. Turn off the main power first before replacing the main bulb and fuse.
- 9. To prevent the instrument from falling down to floor, it should be placed on the floor that is horizontal.
- 10. Turn off the power and cover the instrument with dust cover when it is not in use.
- 11. In case there is any trouble, please first refer to the trouble-shooting guide. If it still can't work, please make contact with the authorized distributor or our Repair Department.
 - 12. Cannot be installed in a location where it is not easy to disconnect the power.
 - 13. This product requires professional medical personnel to use independently.

THE SAFETY MARKS USED IN THIS INSTRUMENT:

1	<u>~</u>	Date of manufacture.
2		Manufacturer information
3	③	Consult instructions for use.
4	CE	CE mark

5	SN	Serial Number
6	EC REP	Authorized Representative in the European Community
7	Rx only (for US)	USA Federal law restricts this device to sale by or on the order of a physician
8	X	WEEE mark Please deal with the waste disposal produced by the machine following relevant laws and regulations.
9	KEEPDRY	Keep dry
10	FRAGILE	Fragile
11	<u> 11</u>	Upward
10	HANDLE WITH CARE	Handle with care
13	<u> </u>	Attention
14	=	Terminal of the protective grounding

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1 General

The user of the medical device must comply with the requirements of the relevant operating regulations and relevant regulations of the medical department, and is limited to the use of trained doctors or technicians use in hospital of clinic. Please read the full text of the instruction manual carefully to ensure that you can use the equipment correctly and safely.

1.1 Model

iSee 9000

1.2 Intended Use

iSee 9000 surgical microscope is mainly used for microsurgery and meticulous examination.

1.3 Features

iSee 9000 surgical microscope is composed of observation system (objective lens, variable magnification zoom system, optical observation system and eyepiece), lighting system, bracket and electrical device. Various accessories can be configured according to different usage requirements.

iSee 9000 surgical microscope is a single binocular operation microscope with zoom magnification and $0-210^\circ$ inclinable binocular.

A cold light source is used in the illumination system, which is harmless to the tissue. The brightness can be continuously set by turning the multifunction switch.

The microscope has a variety of lighting modes, such as orange mode, green mode, etc. And it can switch between modes with multi-function switch.

A spring balance system is designed for the arm so that the microscope can move upwards and downwards stopping at any desired position.

1.4 Specification

1). Parameter of microscope (Objective F=250mm)

Total magnification $3.4 \times \sim 20.4 \times$

Vision field (mm) $\emptyset 61.8 \sim \emptyset 10.3 \text{mm}$

2). Working distance

Objective focus F=250mm Working distance 222mm

3). Parameter of Eyepieces

Diopter adjustment range $\pm 7D$ Eyepieces $12.5 \times$

4). Parameter of Binocular tube

Inclined binocular tubes $0^{\circ} \sim 210^{\circ}$ Pupil distance range $52 \sim 75 \text{mm}$

5). Parameter of Illumination

Illumination system for field of view 4°Lighting illuminance of object surface ≥700001x

6). Parameter of Filter

Built-in filter Orange & Green

7). Parameter of Position adjustment

Maximum stretching radius of arm 1518mm

Vertical movement range(height of

objective lens)

 $790mm \sim 1310mm \,$

8). Parameter of Electric

Input voltage $\sim 100V-240V/50-60Hz$

Input power 70VA

 Fuse
 0218001.MRET1P

 Bulb
 12V/13W LED

Electrical safety Conform to IEC60601-1:2005 Class I

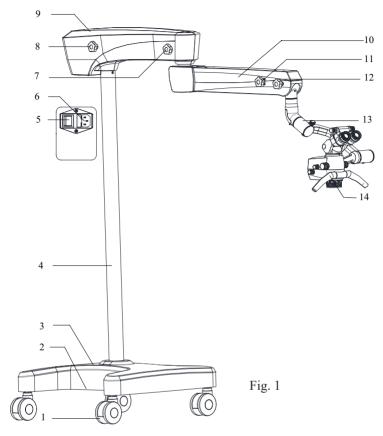
9). Operation Environment

Ambient temperature $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ Relative humidity range $30\% \sim 75\%$ Atmospheric pressure $70\text{kPa} \sim 106\text{kPa}$

1.5 Contraindications

- 1.5.1 Doctors with pacemakers are prohibited.
- 1.5.2 Patients with pacemakers (or other electrical equipment) and warned not to use small appliances (such as electric shavers, hair dryers, etc.) patients are prohibited.
 - 1.5.3 Contraindicated in patients with hemophilia.
- 1.5.4 Use with caution in patients with heart disease, pregnant women and young children.

2 The name and use of components



[01] Caster

Move and support the equipment. There are foot brake in the caster. Press the brake to lock the cater and release the brake to unlock.

[02] Base

Be used to support & fix stand pillar.

- [03] Base cover
- [04] Stand pillar
- [05] Power supply switch

Be used to switch on or switch off power supply.

[06] Power supply socket

[07] Star fixation knob

Adjust the damping of horizontal rotation of suspension arm.

[08] Star fixation knob

Adjust the damping of horizontal rotation of support arm.

- [09] Support arm
- [10] Suspension arm

[11] Star fixation knob

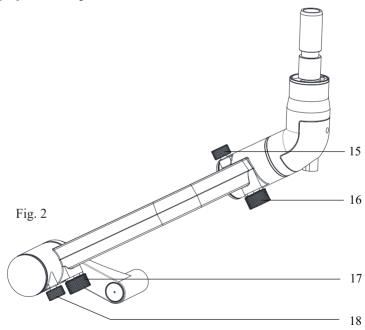
Adjust the damping of vertical movement of suspension arm.

[12] Star fixation knob

Adjust the damping of horizontal rotation of Microscope.

[13] Balance arm

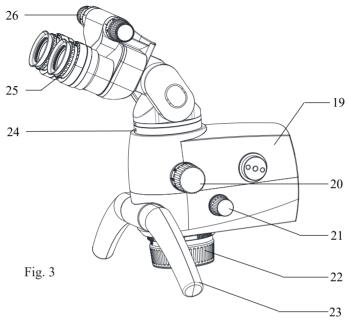
[14] Microscope



[15] Microscope left and right balance adjusting knob

- [16] Microscope left and right balance locking knob
- [17] Microscope front and back balance locking knob

[18] Microscope front and back balance adjusting knob



[19] Microscope main body

[20] Rate conversion knob

Manually adjust the magnification of the surgical microscope.

[21] Light spot size adjustment knob

[22] Objective lens

The standard configuration is F=250, and F=220~320 for optional.

[23] Handle

Hold for moving the microscope

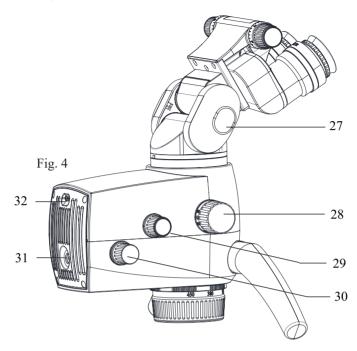
[24] Holding screw

Tighten this holding screw to fix binocular tube

[25] 12.5X Eyepieces

The eyepieces have diopter adjusting ring and eyecups height adjusting ring

[26] Pupil distance adjustment knob



27] binocular tube

Observation angle can be changed according to the height and habit of the surgeon.

[28] Rate conversion knob

Manually adjust the magnification of the surgical microscope

[29] Filter switch knob

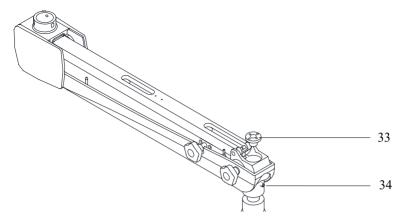
Orange and Green filter switch

[30] Brightness adjustment knob

To adjust lighting spot brightness

[31] Microscope main body power supply socket

[32] Accessory power supply socket

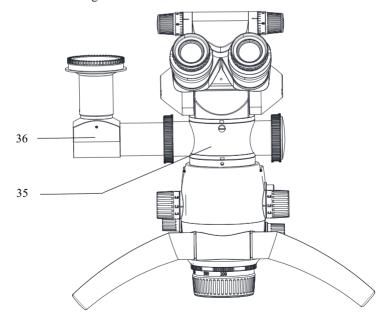


[33] Lock nut

With this nut, the balance arm is hung on the suspension arm.

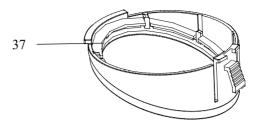
[34] Safety pin

Prevent microscope from falling off when the star fixation knob [12] accidental loosening.



[35] Splitter (optional)

[36] External camera adapter (optional)



[37] Protective glass

[38] Protective cap

Handle protective cap
Objective lens protective cap
Pupil distance adjustment knob protective cap
Balance adjusting knob protective cap
Balance locking knob protective cap

Star fixation knob protective cap	
Rate conversion knob protective cap	
Light spot size adjustment knob, Filter switch knob and Brightness adjustment knob protective cap	

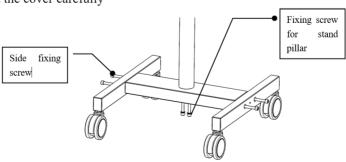
3 Assembly

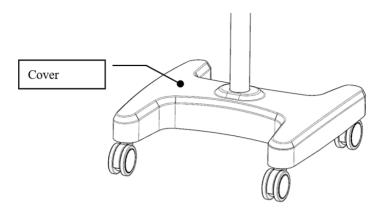
This equipment may be installed either by user self with reference to the manual or by the servicemen sent by the manufacturer or authorized representatives when facing real difficulties.

This equipment is packed in one package. Please open the packages in the direction indicated by the mark on the packages. Take out all the parts and assemble them according to the following procedures.

3.1 Assembly of stand pillar

- 1. Please take out the floor stand [3] from the package, lay it on the ground.
- 2. Take out the stand pillar [4], turn out the inner hexagonal bolt and gasket of its end, insert it into the hole of the floor stand [3], and then turn the stand pillar [4] to make the column pin on the base support clip in the groove on the end of stand pillar, assemble the gasket, spring gasket, inner hexagonal blot in order, and fasten it firmly with 10mm hexagonal wrench.
 - 3.put the cover carefully

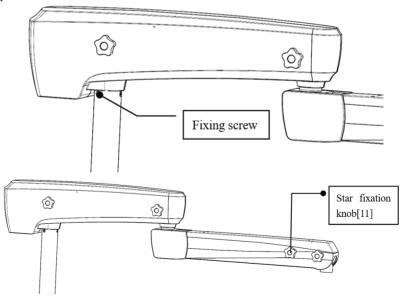




<u>N</u>Caution: Due to the heavy base this work requires at least two people to carry out, and handle with care.

3.2 Assembly of support and suspension arm

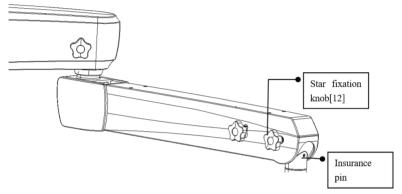
Take out the support and suspension arm and install on the stand pillar. The screw holes on the shaft correspond to the through holes on the stand pillar, and then tighten the inner six pyramid screw with 4mm inner hexagon spanner.



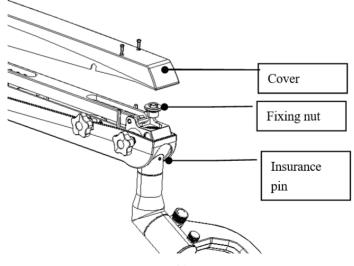
Caution: The suspension arm is balanced by springs. The star fixation knob [11] has tightening but not locking function. Before loosening the star fixation knob [11], you must hold the suspension arm by your hand.

3.3 Assembly of balance arm

1. Open the upper cover of the suspension arm and loosen the star fixation knob [12] and the safety pin [33].



2. Unscrew the lock nut [32] from the balance arm [13] and insert the hanging shaft from the bottom up into hole of the suspension arm, tighten the safety pin and the lock nut, plug the air-to-air connector, cover the upper cover of the suspension arm and fix it.



3.4 Assembly of the Microscope

Take out the Microscope from the carton, and assemble it to the suspension arm.

3.5 Assembly of binocular tube

- 1. Take out the binocular tube and loosen the holding screw [24], remove the dust cover from the microscope.
- 2. Insert the binocular tube [27] into the microscope [14], the locating groove of binocular tube must be consistent with the locating pin of microscope, and the installation surface must be leveled.
 - 3. Tighten the holding screw [24] and fix the microscope.

3.6 Assembly of power cord

Take out the power cord, insert one end into the instrument power supply socket [6] and the other end into the local power socket, and fix the power cord with the wire buckle.

3.7 Assembly of digital camera

- 1. Install the splitter [34] to the microscope and tighten the holding screw [24].
- 2. Install the digital camera adapter [35] to the splitter [34] and tighten the fixing ring.
 - 3. Install digital camera to digital camera adapter [35].

4 Use of the instrument

4.1 Preparation before using the instrument

1. Check whether the mains voltage, frequency complies with what required by the equipment. If it is not, do not start it.

<u>\lambda</u> Caution: Please ensure that the input voltage / frequency of the instrument is the same as the local network voltage / frequency

- 2. Check the grounding of power supply. Make sure the equipment have a good ground-wire connection.
- 3. The equipment comes with a three-core power cable. Please select matched power socket.

<u>N</u>Caution: Please use the power cable provided by the manufacturer or the power cable according with IEC227 standard to ensure that the equipment is well grounded.

4. When the powder switch [5] on the power controlling box is pressed at

"I" position, power is on. When pressed at "O" position, power is off. The switch should always be "O" before the power wire is connected with power socket.

- 5. Insert the plug of the power wire of the equipment into the mains' outlet (It must be well grounded).
- 6. Switch on the power. Check whether the illumination system works properly.

4.2 Use attention

- 1. Please don't look at the light source through objective lens.
- 2. Please don't plug the heat sink of the light source.
- 3. Please pay attention to the warning labels on the instrument.
- 4. Never cover any ventilation openings, e.g. with drapes! This may cause the light source to overheat and lead to lamp failure.

4.3 Adjustment before using the instrument

1. Adjust the balance of suspension arm. Hold the suspension arm with your hand and loosen the star fixation knob [11], open the joint cover and insert an 8 mm hex key, turn balance setting screw until balance has been achieved. Check the balance setting in several positions. Readjust the balance of suspension arm when add or remove the accessories.

Caution: Hold the suspension arm with your hand before loosening the star fixation knob [11].

2. Diopter adjustment. The eyepiece is adjusted to observe clearly. The calibration value of the diopter adjusting ring is 1D per grid, the adjusting range is $\pm 7D$. Rotate diopter adjusting ring to correspond the calibration value of the white line with the refraction of the surgeon. If the surgeon wears glasses, align the white line on the diopter adjustment ring to zero since the gla. Focus adjustment. Adjust the eyecups to observe the full field of view, adjust the magnification of the surgical microscope to the maximum, focus the target clearly, and then adjust to the required magnification. When the magnification is changed, the image is always clear, but the depth of field is different.

Caution: It is necessary to make a form with doctor's diopter if the surgical microscope is used by several doctors.

4.4 Inspection before use

- 1. Confirm that the instrument has been disconnected from the power supply.
 - 2. Check and confirm that all locking nuts and safety pins have been

tightened.

- 4.4.1 The inspection of lighting
- 1. The light source is working properly.
- 2. The LED is turned on when the suspension arm moves up and down in the working range, and the LED light source will automatically extinguish when the suspension arm moves up beyond the working range.
 - 4.4.2 Mechanical parts setting
 - 1. The stand pillar has been set to balance.
- 2. The damping of the support arm, suspension arm, balance arm and microscope has been adjusted.
- 3. The foot brake of the caster is locked and the instrument is stable on the ground.
 - 4.4.3 Optical parts setting
 - 1. Rate conversion knob [20] [28]can work properly.
 - 2. Eyepieces and binocular tube
- (1) The microscope and binocular tube have been adjusted to the posture of convenient operation.
 - (2) The holding screw is [24]tightened firmly.
 - (3) The pupil distance has been set correctly.
 - (4) The eyecups have been adjusted to observe the full field of view.
 - (5) Set the diopter adjustment ring of the eyepiece to correct position.
 - 3. The functions of each position are normal.
 - 4.4.4 Protective cap

Users should put protective cap on pupil distance adjustment knob, magnification knob, multi-function switch, manipulating handle, locking knob, etc.

4.5 Application steps of instruments

- 1. Confirm that all preparations have been completed.
- 2. The instruments are checked as required.
- 3. Switch on the power supply.
- 4. Move the surgical microscope up and down to the working range.
- 5. Turn on the light source and adjust the brightness.
- 6. Select the filter.
- 7. Adjust the surgical microscope to a suitable posture.
- 8. Adjust the magnification knob and select the required rate.
- 9. Move the surgical microscope with handle and focus to clear the field of view.
- 10. Move the suspension arm up and out of the working range, extinguish the light source.
 - 11. Cut of the power supply when the operating microscope is no longer

used.

<u>A</u>Caution: Confirm that the heat dissipation holes have not been covered.

4.6 Movement & storage after the using

- 1. Close the power switch of the instrument and cut off the connection between the instrument and the power supply.
 - 2. Put off all of the protective cap and wipe them for the next use.
- 3. Draw the microscope back to the nearest position to the stand. Fasten every star knob firmly so as to fix the arm and the microscope.
 - 4. Loose the brake of the caster before moving.
- 5. Grasp the power control box firmly with two hands in order to move the equipment slowly and carefully meanwhile avoid bumping and leaning.
 - 6. Lock the brake of the caster after moving to right position.
 - 7. Cover the dust cover on surgical microscope.

5 Maintenance

5.1 Replace the consumable parts

Caution: Replaced parts are treated as ordinary industrial rubbish.

5.1.1 Replace the LED

If the LED light source is damaged, please contact the manufacturer or authorized distributors.

5.1.2 Replacing the fuse

The fuse box is assembled in the power input socket.

Replace the fuse according to the following steps:

- (1) Close the power switch of the instrument and cut off the connection between the instrument and the power supply.
 - (2) Pull the power cord plug from the power socket [6].
- (3) The fuse holder is integrated with the power socket [6], and the fuse holder is ejected from the side by a screwdriver or similar tool.
 - (4) Remove blown fuse.
 - (5) Install the new fuse and re insert the fuse holder.
 - (6) Plug in the power cord.
- (7) Connect the instrument with the power supply, and open the power switch of the instrument, check whether the instrument can operate normally.
 - (8) Fuse type: 0218001.MRET1P.

Naution: Only use fuses of the same type, specification and rated

value.

5.2 Maintenance of the device

It is advised by the manufacturer that the equipment takes regular maintenance at three month's interval or according to the specific condition.

- 1. This equipment is precision instrument. Do not disassemble it casually.
- 2. Equipment has been fully checked before delivery ensuring its proper performance. However, a proper maintenance is necessary. It should not be disassembled by unskilled or unqualified technicians. Otherwise the equipment may be damaged and the performance may be affected.
- 3. Do not place the equipment in a dusty, moist or corrosive environment to avoid damage to the equipment.
- 4. Do not disassemble lenses yourself. If there is dust stained on the lens, blow them with a blowball or brush them with a dust pen. Greasy or water stains can be cleaned off with mirror-cleaning paper or a drop of liquid solvent (1:1mixture of C2H5OH and CH3OCH3), then blow it carefully. Be careful to prevent the solvent from infiltrating the edges of lens.
 - 5. The accessories not in use should be put in a closed box with desiccant.
- 6. All protective caps and protective glass should be wiped clean before and after use.
 - 7. Install a protective glass in front of the objective before use.

Caution: The dirt on the lens should be cleaned in time after use. Drying the dirt on the lens such as the objective lens will make it very difficult to clean. Wiping should be carried out frequently.

5.3 Disposal of wastes

The waste produced by this instrument is LED light source, mirror paper or degreased cotton. Do not throw it away at will. If you have a special waste disposal facility nearby, please try to use it. Discarded instruments shall be disposed of in accordance with the provisions of the relevant local environmental protection laws, please do not pollute the environment.

6 Troubleshooting

In case there is any trouble, please check the following table. If it still does not work, please contact the Repair Department of Kevin Peter. (Refer to Table 1 Trouble Shooting Guide)

Table 1 Troubleshooting guide

Trouble	Possible cause	Remedy
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	ı	,
	The cable isn't connected correctly with the power socket	Connect the power cable correctly
	The power switch is not connected	Connect the power switch
T11	The fuse has blown	Change the fuse
Illumination doesn't light	Power line fault	Change the power line
ingit	Instrument electrical fault	Contact the Repair Department
	The operating microscope is	Move the little arm down to
	not in the working range	the working range
	The LED light doesn't work	Contact the Repair Department
	The life of LED light has	Contact the Repair
The 1:-1-44:- 4	expired	Department
The light spot is too dark or not even	Something cover the heat dissipation holes of the LED light cover plate	Clean the covers
The lighting often goes	Something cover the heat dissipation holes of the LED light cover plate	Clean the covers
out and then lights up during operation	Fan fault	Contact the Repair Department
	Instrument electrical fault	Contact the Repair Department
The surgical microscope is not flexible	Star fixation knob of the suspension arm is screwed too tightly	Adjust the star fixation knob to make the damping suitable
Failure of rate		Contact the Repair
switching		Department
Failure of filter		Contact the Repair
switching		Department

7 Responsibility

We may provide the circuit diagram, electric component list and other details of the equipment at the request of customers to meet their need for repairing.

If any information, service or consultation is needed, please contact with us directly or with our authorized distributors.

8 Transportation, Storage

8.1 Storage

- 8.1.1 This equipment should be handled with care, away from the source of the earthquake, and should be installed or stored in a cool, dry and ventilated place.
- 8.1.2 Do not mix with toxic, corrosive, flammable and explosive items during storage.
- 8.1.3 The product should be stored in an environment where the relative humidity is not more than $10\% \sim 93\%$, the atmospheric pressure is $70\text{kPa} \sim 106\text{kPa}$, and the temperature is $-20^{\circ}\text{C} \sim +55^{\circ}\text{C}$.
- 8.1.4 When the equipment is not in use, turn off the power switch and unplug the power plug; when it is not used for a long time, it should be powered on once a month for five minutes each time.

8.2 Transportation

- 8.2.1 Excessive shock and vibration should be prevented during transportation, handled with care, avoid inversion, and pay attention to moisture-proof.
- 8.2.2 When transporting, it should not be mixed with dangerous goods, and there should be no corrosive gas.
 - 8.2.3 Avoid exposure to sunlight or rain or snow during transportation.
- 8.2.4 If the installed instrument needs to be transported and moved over a short distance, all movable parts in the instrument should be locked, and the instrument should not be tilted more than 10°. If the instrument needs to be transported over a long distance, it should be repackaged and then transported.

9 Spare parts & tools of the instrument

Table 2	Spare	parts	X	tools	j
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No.	Content	Number	Remark
1	Protective cap for PD adjustment knob	2 pcs	
2	Protective cap for magnification knob	2 pcs	
3	Protective cap for multi-function switch	1 pc	
4	Protective cap for manipulating handle	2 pcs	
5	Protective cap for locking knob	4 pcs	
6	Fuse	2 pcs	
7	Inner hexagon spanner	1 pc	
8	Dust cover	1 pc	
9	Slotted screwdriver	1 pc	
10	Cross screwdriver	1 pc	

10 EMC Guidelines

Below cables information are provided for EMC reference.

Table 3 cables information

Cable	Max. cable length, Shielded/unshielded		Number	Cable classification
AC Power Line	2.7m	unshielded	1 Set	AC Power

Important information regarding Electro Magnetic Compatibility (EMC)

SURGICAL MICROSCOPE needs special precautions regarding EMC and put into service according to the EMC information provided in the user manual; SURGICAL MICROSCOPE conforms to this IEC 60601-1-2:2014 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

SURGICAL MICROSCOPE with no ESSENTIAL PERFORMANCE/Following ESSENTIAL PERFORMANCE is intended used in Professional healthcare facility environment.

WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the SURGICAL MICROSCOPE, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

The use of accessories, and cables other than those specified by MEDWORKS, with the exception of accessories and cables sold by MEDWORKS of SURGICAL MICROSCOPE as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the SURGICAL MICROSCOPE.

WARNING: Use of this equipment SURGICAL MICROSCOPE adjacent to or stacked with other equipment should be avoided because it could result in improper operation.

When the AC input voltage is interrupted, the SURGICAL MICROSCOPE will shut down and if the power supply restored, it will restore to previous condition automatically, this degradation could be accepted because it will not lead to unacceptable risks and it will not result in the loss of basic safety or essential performance.

EMI Compliance Table

Table 4 Emission

Phenomenon Compliance Electromagnetic environment	onment
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DE amiggions		Professional healthcare facility environment and
Harmonic distortion	IEC 61000-3-2	Professional healthcare facility environment
	IEC 61000-3-3	Professional healthcare facility environment

NOTE

The EMISSIONS characteristics of this equipment make it suitable for use in industrial areas and hospitals (CISPR 11 class A). If it is used in a residential environment (for which CISPR 11 class B is normally required) this equipment might not offer adequate protection to radio-frequency communication services. The user might need to take mitigation measures, such as relocating or re-orienting the equipment.

EMS Compliance Table

Table 5 Enclosure Port

Dhamanan	Basic EMC	Immunity test levels	
Phenomenon	standard	Professional healthcare facility environment	
Electrostatic	IEC 61000-4-2	±8 kV contact	
Discharge	IEC 01000-4-2	±2kV, ±4kV, ±8kV, ±15kV air	
Radiated RF EM field	IEC 61000-4-3	3V/m	
		80MHz-2.7GHz	
		80% AM at 1kHz	
Proximity fields from RF wireless communications equipment	IEC 61000-4-3	Refer to table 3	
Rated power frequency magnetic fields	IEC 61000-4-8	30A/m 50Hz or 60Hz	

Table 6 Proximity fields from RF wireless communications equipment

Test frequency	Band	Immunity test levels
(MHz)	(MHz)	Professional healthcare facility environment
385	380-390	Pulse modulation 18Hz, 27V/m
450	430-470	FM, ±5kHz deviation, 1kHz sine, 28V/m
710		
745	704-787	Pulse modulation 217Hz, 9V/m
780		

810		
870	800-960	Pulse modulation 18Hz, 28V/m
930		
1720		
1845	1700-1990	Pulse modulation 217Hz, 28V/m
1970		
2450	2400-2570	Pulse modulation 217Hz, 28V/m
5240		
5500	5100-5800	Pulse modulation 217Hz, 9V/m
5785		

Table 7 Input a.c. power Port

D.	Basic EMC	Immunity test levels	
Phenomenon	standard	Professional healthcare facility environment	
Electrical fast transients/burst	IEC 61000-4-4	±2 kV 100kHz repetition frequency	
Surges Line-to-line	IEC 61000-4-5	±0.5 kV, ±1 kV	
Surges Line-to-ground	IEC 61000-4-5	±0.5 kV, ±1 kV, ±2 kV	
Conducted disturbances induced by RF fields	IEC 61000-4-6	3V, 0.15MHz-80MHz 6V in ISM bands between 0.15MHz and 80MHz 80%AM at 1kHz	
Voltage dips	IEC 61000-4-11	0% U _T ; 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% U _T ; 1 cycle and 70% U _T ; 25/30 cycles Single phase: at 0°	
Voltage interruptions	IEC 61000-4-11	0% U _T ; 250/300 cycles	

11 After-sales service

Since the date of sale, if the equipment fails to work normally due to quality problems, our company will be responsible for the maintenance based on the warranty card. Please refer to the warranty card for the warranty period and scope. This product does not contain self-maintained parts, and the maintenance of this equipment should be carried out by designated professionals or special repair shops.



Guilin Kevin Peter Technology Co., Ltd. Standard workshops, F2-F3, BLDG 4, HUAWEI INFO ECO IND COOP ZONE, North side of Linsu Rd, Lingui Town, Lingui Dist., Guilin, 541104, P. R. China

Tel: +86-773-2352685

EC REP MedNet EC-Rep GmbH Borkstrasse 10 · 48163 Muenster · Germany

KP-SM-001 V1.0- 20220825

Surgical Microscope Warranty Card

Name of Customer		
Address Details		
Postal Code		
Tel		(I)
Model		For Distributor
Product No.		
Purchase Date		
Contact Person		
Date	Maintenance Record	Repairer

444	Guilin Kevin Peter Technology Co., Ltd.
	Standard workshops, F2-F3, BLDG 4, HUAWEI INFO
	ECO IND COOP ZONE, North side of Linsu Rd, Lingu
	Town, Lingui Dist., Guilin, 541104, P. R. China
Tel: +8	6-773-2352685

Distributor:	
	Seal

Surgical Microscope Warranty Card

	Warranty Card	
Name of Customer		
Address Details		
Postal Code		
Tel		(II)
Model		Return to Manufacturer
Product No.		
Purchase Date		
Contact Person		
Date	Maintenance Record	Repairer

***	Guilin Kevin Peter Technology Co., Ltd.
	Standard workshops, F2-F3, BLDG 4, HUAWEI INFO
	ECO IND COOP ZONE, North side of Linsu Rd, Lingui
	Town, Lingui Dist., Guilin, 541104, P. R. China
Tel: +8	6-773-2352685

Distributor:	
Seal	

Warranty Instruction

I Period validity:

Since the date of sales, our company will be responsible for the repair of microscope for one year. Please refer to the Warranty Card for warranty period and warranty scope.

II Range of warranty:

Within the warranty period of validity, we are responsible for any troubles caused by quality problems or products technique and structure.

III The following are beyond our warranty:

- 1. The damage caused by disobeying the operation instruction or lack of the needed condition.
- 2. The damage caused by unsuitable operation or disassembly without authorization.
- 3. The damage caused by unadvisable transportation or preservation.
- 4. There isn't the seal of distributor or the warranty card isn't filled in completed.
- 5. Except for the handpiece, charging base, power adapter and lithium battery, the other accessories are not covered by the warranty.

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