MEDIZINTECHNIK seit 1890

KaWe

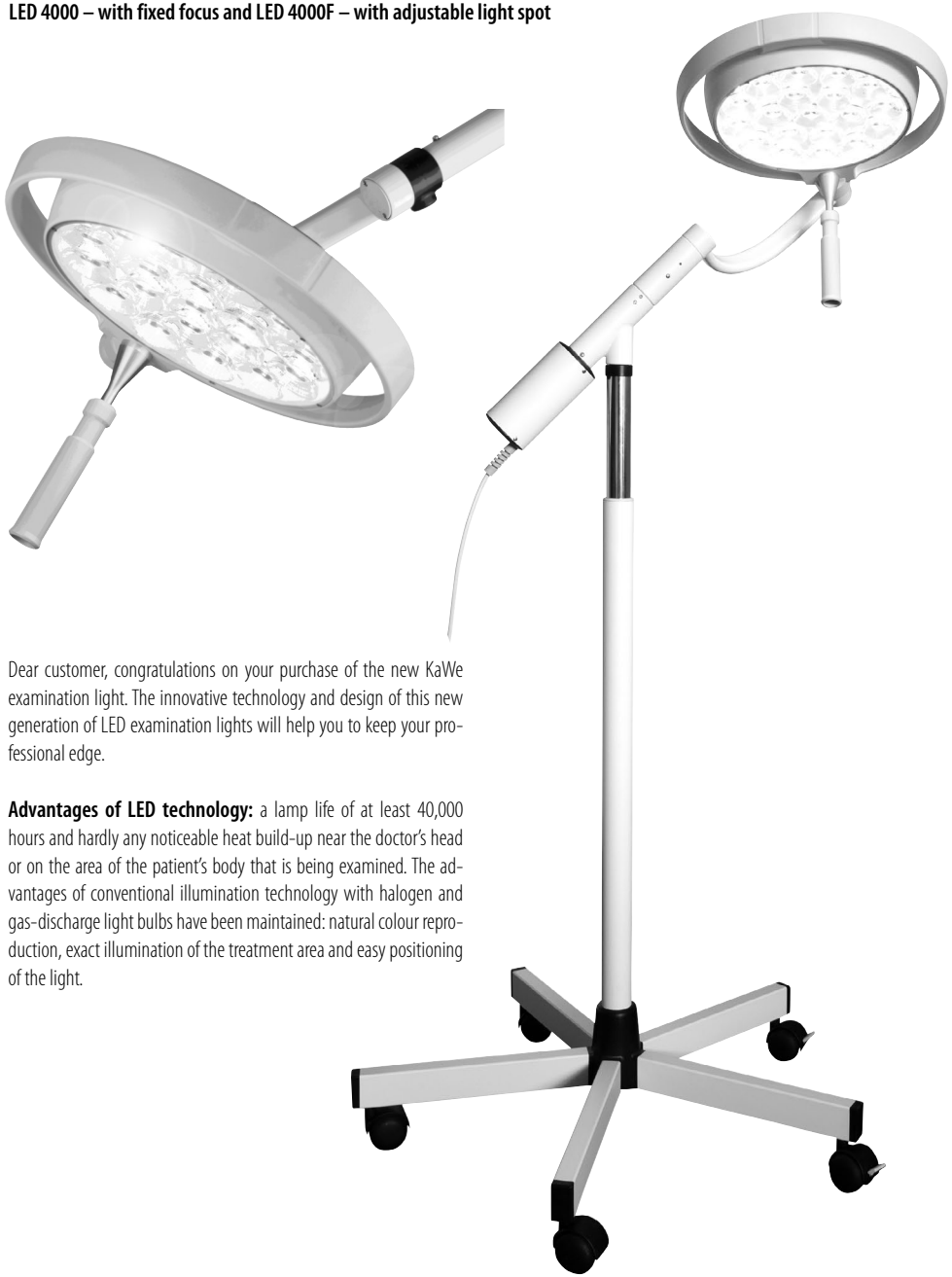
MASTERLIGHT
LED 4000
LED 4000F

CE

QM-GAP-0050D

User's Manual – MASTERLIGHT LED 4000 / LED 4000F

Floor stand model with pivoting arm:
LED 4000 – with fixed focus and LED 4000F – with adjustable light spot



Dear customer, congratulations on your purchase of the new KaWe examination light. The innovative technology and design of this new generation of LED examination lights will help you to keep your professional edge.

Advantages of LED technology: a lamp life of at least 40,000 hours and hardly any noticeable heat build-up near the doctor's head or on the area of the patient's body that is being examined. The advantages of conventional illumination technology with halogen and gas-discharge light bulbs have been maintained: natural colour reproduction, exact illumination of the treatment area and easy positioning of the light.

TABLE OF CONTENTS

STAND BASE

1. SAFETY INSTRUCTIONS

When handling the light, the instructions given in the User's Manual must be followed.

CAUTION: This device is not intended for use in areas in which explosions may occur. This lamp is classified as a class 1 device according to the medical products law.

Prior to assembly, store the KaWe examination light in its packaging in the room in which it will be used for at least 24 hours in order to compensate for transport-related temperature fluctuations. Please read these instructions thoroughly and carefully and familiarise yourself fully with this product before using it in order to benefit from all the advantages of the lamp system and to avoid the possibility of damaging it. Repair and maintenance work on the KaWe examination light is only to be carried out by us or by a location expressly authorised by us to perform such work.

The safety of the KaWe examination light is only guaranteed if repairs and changes are performed by the manufacturer itself or by a location that guarantees that the safety rules will be followed.

⚠ The KaWe examination light may not be modified in any way!

The manufacturer is not responsible for damage to persons or other objects if the KaWe examination light is used incorrectly or for a non-intended purpose. Disassembly of the light body from the spring arm is to be carried out in reverse order of assembly and may only be carried out after the arm has been raised to its maximum height and is in a horizontal position.

Prior to each use, check the KaWe examination light to ensure that it is in perfect working order.

Warning, external adapter! The KaWe examination light only works with the 60VA external adapter. The external adapter that is used for the examination lamp must be tested in accordance with IEC 60601-1.

ON/OFF switch: An on-site ON/OFF switch is to be installed to interrupt the input current to the device. The switch must fulfil IEC 61058-1 requirements for rated voltage peaks of 4kW.

CAUTION: During assembly of the KaWe examination light, the entire system (including ceiling mount) must be disconnected from the power supply! Later removal of the KaWe examination light from the spring arm or disassembly of the sliding contacts in the arms is ONLY ALLOWED AFTER COMPLETELY DISCONNECTING THE LIGHT FROM THE POWER SUPPLY NETWORK. The electronics may become damaged if the light is not disconnected from the power supply network!

Symbol key:

	Caution!
	This symbol informs of important assembly instructions, useful information and user's tips
	Temperature limit
	Separate disposal of electric and electronic devices
CE	Complies with relevant EU guidelines
	Heed the User's Manual
	Protection class II
	GOST-R certification for exports to Russia
	Keep dry
	Humidity, limit
	Date of manufacture
	Manufacturer
SN	Series number
REF	Product reference number
	Non-ionizing radiation

2. SHORT DESCRIPTION OF THE KaWe EXAMINATION LIGHT

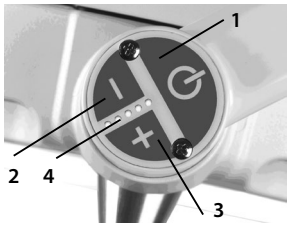
Information about intended use: The KaWe examination lights were developed to be used by doctors in hospitals or in clinics in order to illuminate areas of patient's bodies during medical examinations.

Main function: The KaWe examination light serves to provide illumination.

General product description

- This is a KaWe examination light as described in EN 60601-2-41, which as individual luminaries, are not failsafe.
- The KaWe examination light is intended to aid in treatment and diagnosis.
- The KaWe examination light is used in areas used for medical reasons (group 0, 1 and 2 according to DIN VDE 0100-710 and HD 60364-7-710).
- The lights are mounted on a stand.
- The lights are to be serviced every 2 years.

3. OPERATING THE KAWE EXAMINATION LIGHT



3.1 Switching the light ON/OFF

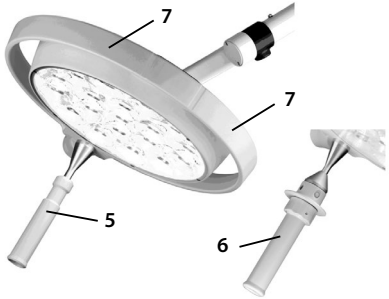
The KaWe examination light is turned OFF and ON using button **1** on the control panel.

3.2 Brightness control

The KaWe examination lights are all equipped with a brightness control function. The lamp models offer brightness modulation between 50% and 100% allowing the brightness of the light to be selected as required. By pressing button **2**, the brightness can be reduced. Button **3** increases the brightness. The selected intensity is visible on the display **4**.

3.3 Focussing (only LED 4000F)

The LED 4000F KaWe examination lights have a light spot that can be focused, meaning they can be enlarged or made smaller as the situation requires. To focus the light spot, turn the handle **5** on the light body (see image).



3.4 Positioning

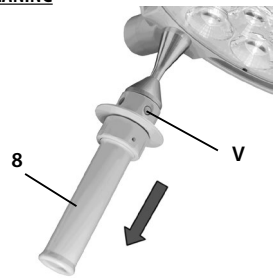
Use the handle **5/6** or both handlebars **7** to position the light body as desired.

The outer handlebars are used to position the light before a procedure. The handle is used to reposition the KaWe examination light during surgical procedures.

There are two types of handles available:

- Standard handle **5**
- Sterilisable handle **6** (additional cost)
  The sterilisable handle can be removed for sterilisation.

4. CLEANING



4.1 Sterilisable handle

For an additional charge, the KaWe examination light can be equipped with the **sterilisable handle sleeve 8**. The removable handle sleeve can be steam sterilised and must be cleaned, disinfected and sterilised before the first and each subsequent use.

To be sterilised, the handle sleeve must be removed:

- To remove the sterilisable handle sleeve **8**, press and hold down the locking mechanism **V** and pull the handle sleeve off in a downward motion.
- Put the handle sleeve **8** back on by pushing it back on with a twisting motion until the locking mechanism **V** clicks securely.

During an examination, the handles often become unsterile. Therefore, ensure that additional replacement handles are kept at hand.

Cleaning/Disinfection and Sterilisation

Basics

Effective cleaning and disinfection are key requirements for effective sterilisation of the handle. The responsibility for the sterility of these products includes ensuring that only sufficiently-validated equipment and product-specific processes are used for cleaning/disinfection and that the validated parameters are complied with during every cycle. In addition, the hospital / clinic hygiene regulations must be observed.

Note: The national board requirements (norms and directives) for hygiene and disinfection must be followed.

Cleaning / disinfection

Cleaning and disinfection must take place immediately after use. A mechanical sterilisation procedure should be used for cleaning / disinfection. Only procedures with proven effectiveness may be used (e.g. those listed under disinfectants and disinfection procedures that are tested and recognised by Robert-Koch-Institute / DGHM) and they must always have already been previously validated. When using other procedures (such as manual cleaning), proof of the effectiveness of the procedure must be given as part of the validation. The principle proof of the suitability of the handles for efficient cleaning / disinfection was carried out using a cyclic cleaning system (Netsch-Bellmed T-600-IUDT/AN, programme 2 for small parts; code B).
Agents / disinfectants containing the following substances may not be used as these may cause changes in the material:

- High-concentration organic and inorganic acids
- Chlorinated hydrocarbons
- 2-ethoxyethanol

When cleaning and disinfecting, the following procedures must be followed:

Zone	Procedure	Time (sec.)
1	Pre-rinse, external, cold, 10 – 15°C Washing, acidic, external 35°C Draining time Re-rinse, external, approx. 80°C Draining time Re-rinse, external, approx. 80°C Draining time 45	45 120 10 *10 *15 *15 15
2	Washing, alkaline, external, 93°C Draining time Re-rinse, external, approx. 90°C Draining time Re-rinse, external, approx. 90°C Draining time 135	135 10 10 15 15 15
3	Drying, external 100 – 120° C	200
4	Drying, external 100 – 120° C	200
	Door open / close & transport (sluice discharge)	60
	Total cycle time approx.	290 ≈ 5 min.

* During the disinfection zone (wash zone 2), the re-rinse and draining times will depend on the type of objects being washed!

⚠ Sterilisation

Only previously cleaned and disinfected handles may be sterilised. The handles are placed in and sterilised in suitable sterilisation packaging (single-use sterilisation packaging, such as wrap / paper sterilisation bags, single or double pack) in accordance with DIN EN 868 / ISO 11607 for steam sterilisation. Only the sterilisation procedure listed below may be used. Other sterilisation procedures (such as ethylene oxide, formaldehyde and low-temperature plasma sterilisation) are not permissible.

Steam sterilisation procedure

Validated in accordance with DIN EN 554/ISO 11134
Maximum sterilisation temperature 134°C

The principle proof of the suitability of the handles for effective sterilisation was carried out using a fractional vacuum process (Euroselectomat 666 by MMM Münchner Medizin Mechanik GmbH, sterilising temperature 134°C, holding time 7 min.). If other procedures (such as manual cleaning) are used, proof of the suitability and principle effectiveness of the procedure must be given as part of the validation.

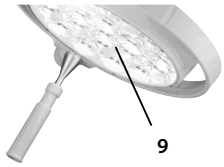
Inspection/durability

Each time before they are reused, the handles should be inspected for damage and replaced if necessary.
The sterilisable handle sleeve must be discarded and replaced with a new one after 1000 sterilisation cycles or after a maximum of 2 years. A stamped number on the inside of the handle sleeve (as shown) can be used to check the year of manufacture of the sleeve (in the picture, 12 stands for the year 2012).

4.2 Light body, protective screen and support system

The surface of the light is made of a high-quality material that can be cleaned with conventional cleaning agents.
The protective screen **9** is made of a high-quality plastic. Pay attention to the following during cleaning:

- Always clean the screen **9** with a wet cloth (never clean with a dry cloth!).
- The protective screen **9** is to be wiped with an anti-static agent using a lint-free cloth.



▶ 5. FIRST USE AND MAINTENANCE

The KaWe examination light is to be serviced at least every two years. This includes an electrical and mechanical inspection.
Please heed the user's manual and assembly instructions for the support systems as these may contain different maintenance timeframes.

Caution: Make sure that the height stop (if present) is horizontal before the lamp is removed from the spring-loaded arm. Please heed the user's manual and assembly instructions for the support system.

⚠ Note: Before conducting any maintenance or tests on the KaWe examination light, unplug it from the electrical outlet and ensure that it will not be plugged in again until the work has been completed.

5.1 Procedure for first use and maintenance of the light

Inspect the KaWe examination light (especially for the following):

- Paint defects
- Cracks in plastic parts
- Deformation of the support system
- Loose parts
- Check the connection between the examination lamp and support system.
- Inspect and grease the mechanism securing the arm to the stand
- Proper operation
- Electrical safety

Note: Circuit diagrams, part lists and maintenance instructions are available upon request. The replacement of parts and repair work on the lamp during treatment are not allowed. Touching parts contained within the lamp housing while at the same time touching a patient is not allowed.

▶ 6. TECHNICAL DATA

6.1 Photometric data

	LED 4000F	LED 4000
Central illumination intensity at a distance of 1 meter	70,000 Lux	60,000 Lux
Light spot diameter d_{10}	128 mm	135 mm
Light spot diameter d_{50}	65 mm	70 mm
Residual illumination intensity with one shutter	0 %	0 %
Residual illumination intensity with two shutters	46 %	56 %
Residual illumination intensity at the bottom of a normed tube	100 %	100 %
Residual illumination intensity at the bottom of a normed tube and one shutter	0 %	0 %
Residual illumination intensity at the bottom of a normed tube and two shutters	46 %	56 %
Illumination depth 20 %	1750 mm	1750 mm
Illumination depth 60 %	650 mm	600 mm
Colour rendering index CRI	95	95
Colour rendering index R_9	94	94
Max. irradiation intensity in the field at a distance of 1.0 m	250 W/m²	213 W/m²
Max. irradiation intensity in the field at a distance of 0.8 m	270 W/m²	234 W/m²
Focusable light spot size	14-25 cm	17 cm
Colour temperature (Kelvin)	4500 K	4500 K
Heat build-up near the head	0.5° C	0.5° C
Electronic brightness control on the light body (standard)	50 - 100 %	50 - 100 %
Number of LEDs	19	19
Working lifespan of the LEDs	60,000 h	60,000 h
Work area	70-140 cm	70-140 cm
Diameter of the light body	33 cm	33 cm
Height adjustment limit	123 cm	123 cm

Note: The technical data are subject to certain deviations. Due to production–related reasons, the actual values can vary slightly from the above-named values. The values for R_a can deviate by approx. ± 5%. The colour temperature values can deviate by approx. ± 200K.

6.2 Electrical Data

	LED 4000F/LED 4000
Power input	28 W
Operating voltage	24 V DC
Amperage	1.2 A

6.3 Electrical installation information

The KaWe examination light is exposed to a current peak when it is switched on and is therefore equipped with a power adapter. The adapter has a wide range input, an input voltage of 100 - 240V AC, 50 - 60Hz, and output voltage of 24V DC. If a changeover relay is required for an existing on-site emergency power supply for the KaWe adapter, this relay must be ordered separately from KaWe.

Warning! This light is a Protection Class I device. To avoid the risk of electric shock, this unit must be connected to a grounded electric outlet.

6.4 Weights

KaWe examination light	Weight
LED 4000	2.4 kg
LED 4000F	2.4 kg

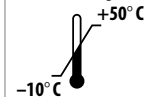
6.5 Environmental conditions

	Operation	
	Min.	Max.
Temperature	+10° C	+30° C*
Relative humidity	30 %	75 %
Air pressure	700 hPa	1060 hPa

* for higher temperatures please contact us.

	Transport/storage	
	Min.	Max.
Temperature	−10° C	+50° C
Relative humidity	20 %	90 %
Air pressure	700 hPa	1060 hPa

Instructions on the packaging

Temperature range during transport and storage	Humidity during transport and storage	Air pressure during transport and storage
	**RH** **20% - 90%**	**P** **700hPa - 1060hPa**

6.6 Important information

If multiple KaWe examination lights are used at once, the total irradiance may exceed 1,000 W/m² due to superposition of the luminous fields. As a result, there is a risk that the illuminated field may become very hot. The superposition of the luminous fields of multiple KaWe examination lights may cause the limit values for UV radiation (<400 nm) of 10 W/m² to be exceeded.

⚠ The report on the factory test for electrical safety can be obtained upon request. The only requirement is the serial number of the light for which the protocol is desired. If other KaWe examination lights or other pieces of equipment are connected together during installation, section 16 of EN 60601-1:2013 applies and if necessary, the compliance with the requirements is to be verified. Before initial operation, the installation must be inspected in accordance with EN 62353.
When installing the KaWe examination light, the polarity is very important. Should the KaWe examination light not work after installation, during troubleshooting, the polarity can be switched on the secondary side of the power supply.

▶ 7. CE-LABEL

CE This KaWe examination light complies with guidelines 93/42/EWG (guidelines for medical products from the council of the European communities). The applicable standard is EN 60601-2-41. The company KIRCHNER & WILHELM GmbH + Co. KG is certified according to DIN EN ISO 13485:2012.

▶ 8. DISPOSAL

At the end of the product's life, the components of the KaWe examination light are to be disposed of properly. Ensure that the materials are sorted carefully according to type. The electrical circuit boards are to be disposed of at an appropriate recycling centre. The lamp housing and the rest of the components of the KaWe examination light should be disposed of according to their type of material.

▶ 9. ELECTROMAGNETIC COMPATIBILITY TABLES AND INFORMATION

These KaWe examination lights are subject to special safety measures with regard to EMC requirements and must be installed in accordance with the enclosed EMC instructions. The functionality of these KaWe examination lights can be influenced by portable and mobile HF communication devices.

⚠ **The use of other accessories will result in increased emissions or decreased immunity of the unit.**

⚠ **For the KaWe examination light to operate as intended, it is necessary that the light not be placed directly next to or stacked together with other equipment. If the lamp must be used directly next to or while stacked with other equipment, the KaWe examination light is to be closely monitored.**

Table 9.1 Guidelines and Manufacturer Declaration – Electromagnetic Emissions

Guidelines and Manufacturer Declaration – Electromagnetic Emissions		
The KaWe examination light is designed to be used in the types of environments listed below. The customer or user of the KaWe examination light is responsible for ensuring that this device is used in such an environment.		
Emissions Measurement	**Conformity**	**Electromagnetic environment – guidelines**
Harmonic oscillations according to IEC 61000-3-2	Class A	The KaWe examination light is designed for use in all facilities including living spaces that are directly connected to a public low-voltage power supply network that also supplies power to buildings used for domestic purposes.
Voltage fluctuations / flicker emissions according to IEC 61000-3-3	Complies	
Type-CISPR 15-1 high frequency emissions	Complies	The KaWe examination light is not designed to be connected to any other type of device.

Table 9.2
Guidelines and Manufacturer Declaration – Electromagnetic Interference Immunity

Guidelines and Manufacturer Declaration – Electromagnetic Interference Immunity			
The KaWe examination light is designed to be used in the types of environments listed below. The customer or user of the KaWe examination light is responsible for ensuring that this device is used in such an environment.			
Interference immunitytest	**IEC 60601-test level**	**Compliance level**	**Electromagnetic environment – guidelines**
Electrostatic discharge (ESD) according to IEC 61000-4-2	± 6kV contact discharge ± 8 kV air discharge	± 6kV contact discharge ± 8 kV air discharge	The flooring should be wood or concrete or be covered with ceramic tile. If the floor material is a non-conductive, synthetic material, the relative humidity of the air must be at least 30%.
Fast transient electrical disturbances/ bursts according to IEC 61000-4-4	± 2kV for power supply lines ± 1kV for input and output lines	± 2kV for power supply lines Not applicable	The quality of the mains supply voltage should be the same as that of a typical commercial or hospital environment.
Surges according to IEC 61000-4-5	± 1 kV differential mode voltage ± 2 kV common mode voltage	± 1 kV differential mode voltage ± 2 kV common mode voltage	The quality of the mains supply voltage should be the same as that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines according to IEC 61000-4-11	< 5 % U_T (>95 % dip in the U_T) for a ½ period 40 % U_T (60 % dip in the U_T) for 5 periods 70 % U_T (30 % dip in the U_T) for 25 periods < 5 % U_T (>95 % dip in the U_T) for 5 seconds	< 5 % U_T (>95 % dip in the U_T) for a ½ period 40 % U_T (60 % dip in the U_T) for 5 periods 70 % U_T (30 % dip in the U_T) for 25 periods < 5 % U_T (>95 % dip in the U_T) for 5 seconds	The quality of the mains supply voltage should be the same as that of a typical commercial or hospital environment. If the user of the KaWe examination light requires continued operation during power interruptions, it is recommended that the KaWe examination light be powered from an uninterruptable power supply or a battery.
Magnetic field with a power frequency of (50/60 Hz) according to IEC 61000-4-8	3 A/m	30 A/m	Magnetic fields with their line frequencies should be the same as those typical of commercial and hospital environments.
Note: U_T is the mains voltage prior to application of the test level.			

Table 9.3
Guidelines and Manufacturer Declaration – Electromagnetic Interference Immunity

Guidelines and Manufacturer Declaration – Electromagnetic Interference Immunity			
The KaWe examination light is designed to be used in the types of environments listed below. The customer or user of the KaWe examination light is responsible for ensuring that this device is used in such an environment.			
Interference immunitytest	**IEC 60601-test level**	**Compliance level**	**Electromagnetic environment – guidelines**
Conducted HF-interference according to IEC 61000-4-6	3 V 150 kHz to 80 MHz	3 V	Portable and mobile HF communications equipment should be used no closer to the KaWe examination light (including its power cords) than the recommended separation distance. The separation distance is calculated using various equations depending on the transmission frequency. Recommended separation distance: $d = 1.17\sqrt{P}$
Radiated HF-interference according to IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.17\sqrt{P}$ for 80 MHz to 800 MHz $d = 2.34\sqrt{P}$ for 800 MHz to 2.5 GHz "P" is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. "d" is the recommended separation distance in meters (m). Field strengths from fixed transmitters, as determined by an electromagnetic survey of site "a" are less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol.
Note 1: For 80 MHz and 800 MHz, the larger of the two values applies. **Note 2:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a: Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted with accuracy in theory. It is recommended that in order to assess the electromagnetic environment caused by fixed HF transmitters, an electromagnetic site survey should be conducted. If the measured field strength at the location at which the KaWe examination light is used exceeds the applicable compliance level stated above, the equipment should be checked at each of its locations of use in order to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the KaWe examination light . **b:** For frequencies ranging from 150 kHz to 80 MHz, the field strength is less than 3 V/m.			

Table 9.4
Recommended Separation Distances between Portable and Mobile HF Communications Equipment and the device or system

Recommended Separation Distances Between Portable and Mobile HF Communications Equipment and the KaWe Untersuchungsleuchte			
The KaWe examination light is intended for use in an electromagnetic environment in which radiated HF disturbances are controlled. The customer or the user of the equipment can help prevent electromagnetic interference by ensuring that the minimum distance (shown below) between communications equipment (transmitters) and the KaWe examination light is maintained. The minimum distance is dependent on the maximum output power and the frequency of the communications equipment.			
	Separation Distance According to Transmitter Frequencies (m)		
Rated Power Output of Transmitter (W)	150 kHz to 80 MHz $d = 1.17\sqrt{P}$	80 MHz to 800 MHz $d = 1.17\sqrt{P}$	800 MHz to 2.5 GHz $d = 2.34\sqrt{P}$
0.01	0.12	0.12	0.23
0.10	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.69	3.69	7.38
100	11.67	11.67	23.33
For transmitters with a maximum rated output not specified in the above table, the recommended separation distance (d) can be determined in meters (m) using the equation for each column, where the maximum rated power (P) of the transmitter is in watts (W) as given by the transmitter manufacturer.			
Note 1: For 80 MHz and 800 MHz, the larger of the two values applies. **Note 2:** These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

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10. SAFETY NOTICE

The floor stand may only be plugged into an electrical outlet after it has been fully assembled.

Repair work on the stand and especially assembly work on the sliding contacts may only be performed by us or by someone authorised by us to do so.

The manufacturer is only responsible for the safety of the stand if repairs and modifications were performed by the manufacturer or at a place that is guaranteed to comply with the safety regulations.
The manufacturer is not liable for any injuries or property damage if the stand is not used for its intended purpose or operated incorrectly.

General information
These assembly instructions must be stored with the user's manual for the examination light for future reference.

All KaWe examination lights are delivered with all of the parts required for assembly and connection.

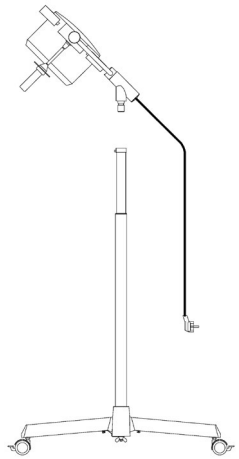
In order to reduce the packaging volume, the five-footed base of the floor stand comes disassembled. The stand post is always assembled as one piece and must only be attached to the base with its lower fastening screw.

The KaWe examination light (stand post or cross arm) is equipped with an integrated power cord and safety plug.

The electrical outlet used must be installed according to IEC and VDE 0107 regulations.

Check to see if there is a Schuko electrical outlet within the operating range of the light.

11. ASSEMBLY OVERVIEW



Stand height adjustable - for KaWe examination lights with short, fixed arm.

12. SUMMARY TABLE

Stand base – stand post – cross arm

Data by lamp type:		Light
Power supply	Primary	230 V AC (120 V AC optional)
	Secondary	24 V (DC at 18 and 20 LED)
	Transformer	50 W (60 W at 18 and 20 LED)
Stand base	Number of feet	5
	Foot length	310 mm
	Castors Ø	50 mm
	Note	Weighted
Stand post	Length approx.	84 - 138 cm
	Diameter	40 mm
	Telescoping	Yes
	Power cord connection	None
Cross arm + light body	Assembly	Light body on stand

13. ASSEMBLY INSTRUCTIONS

Parts included:
- Stand base – five-foot base with profile feet and hardware
- Stand post
- Light body with short arm / cross arm
- Assembly instructions
- User's manual for the KaWe examination light

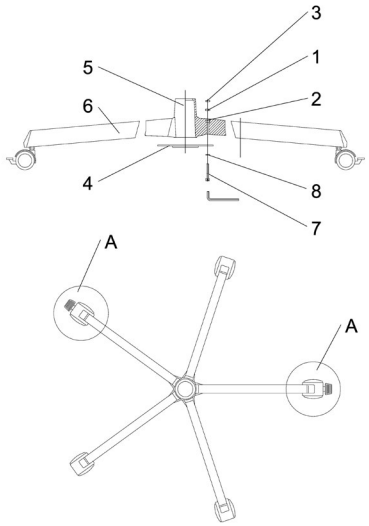
13.1 Stand assembly

13.1.1 Stand base assembly

The assembly procedure for the stand base is the same for all models. Assemble the stand base as follows:
- Insert the supplied hex nuts **1** into the depressions **2** on the connection struts.
- Press the plastic sleeves **3** onto the nuts.
- Place the metal disc **4** into the depression on the centre piece 5.

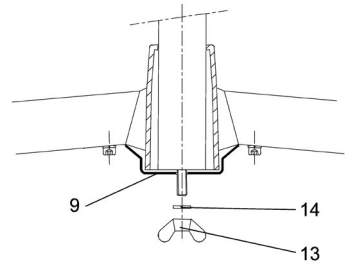
Note: Ensure that the feet with the locking castors are positioned such that they are exactly opposite one another (see detail A).

- Insert the included screws **7** and the spring washers **8** into the boreholes and tighten them with a wrench until the feet are fastened securely.



13.1.2 Light body on stand

Telescoping floor stand
Before placing the stand post onto the base, ensure that the grounding strip **9** on the foot is bent such that the fastening screw can be inserted through the hole on the grounding strip.



Light body on stand
Insert the stand post into the base and secure it with the included wing nuts **13** and washers **14**.

13.2 Lamp arm/short arm and light body assembly

13.2.1 Attaching the examination light to the short arm

Before the short arm can be secured to the stand post, the light body must be attached to the short arm.

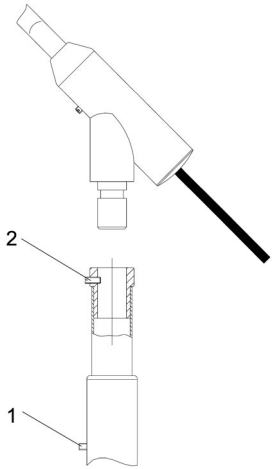
Position the light body and the short as shown. The peg of the short arm must be rotatable in the downward direction.

Insert the light completely into the short arm.

- Swivel the short arm upward.
- Tighten the four set screws (see marking) by hand.
- Mount the short arm and attached lamp onto the stand post as described in section 13.2.2.

13.2.2 Attaching the lamp arm/short arm to the lamp post

The stand post has a socket on its upper end in which the pins on the cross arm or the short are inserted.

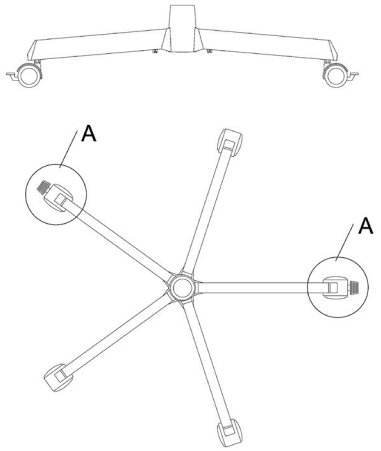


The stand post comes with a fully retracted telescoping tube.
As the telescope has an integrated spring counterbalance system that keeps the mounted light body exactly in the desired location, for transport reasons, it is secured by screw **1** in its fully retracted position. This screw is to be removed in the following manner: Hold the telescoping tube steady and after removing the screw, allow it to slowly extend until it is all the way out.

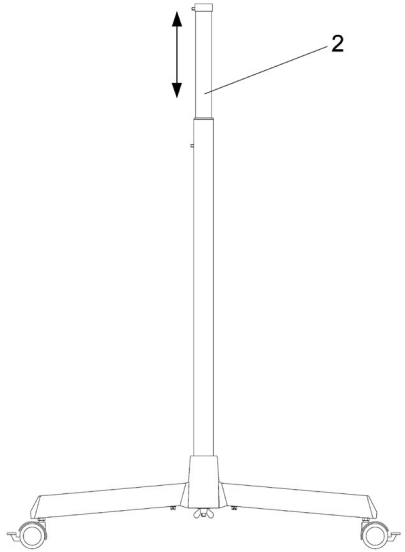
▶ 14. USER'S MANUAL

14.1 Base

The 5-footed floor stand has two locking castors, which are located opposite one another. The castor is locked by pressing down on the tab in front of the castor. The castor can be unlocked by gently lifting up on the tab.



14.2 Stand post



The height of the stand post can be infinitely adjusted with just one hand and remains precisely positioned at the desired height.
The height can be adjusted by simply lifting the telescoping stand post **2**. The post will stay at the selected height.

▶ 15. CLEANING

Alc. ≤ 20%

The surface of the floor stand can be easily kept clean by wiping it with a damp cloth. Any common cleaning agents may be used.
Should disinfection be necessary, the use of an agent that is either dissolved in water or max. 20% alcohol is recommended.

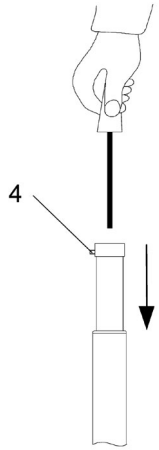
▶ 16. MAINTENANCE

Caution!
All models may only be serviced if the power cord has been unplugged.

When assembling the KaWe examination light and once per year thereafter, the mounting pin and the groove are to be lightly greased with non-acidic grease.

Adjusting the spring tension

If the light no longer stays in the desired position, proceed as follows:



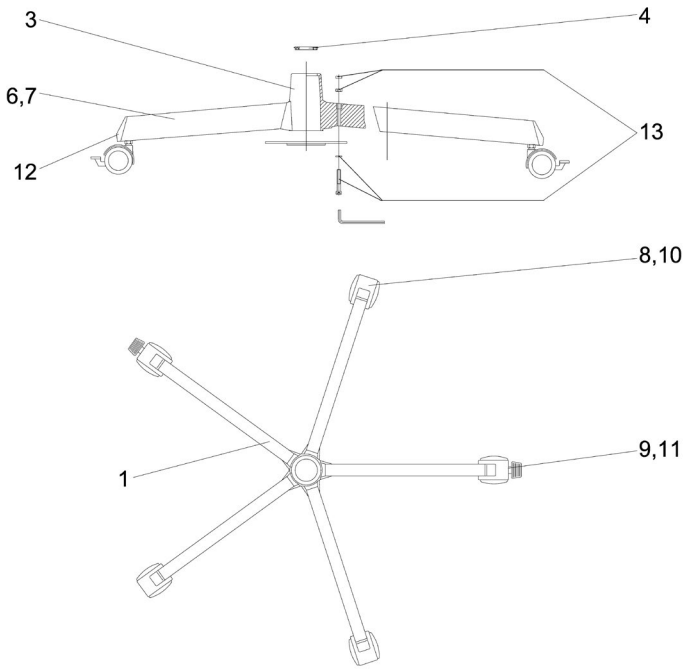
- Remove the light body. Loosen the threaded pin **4** M5x10 in the cap ring of the telescoping tube until the light body can be pulled up out of the stand post
- Push the telescoping tube of the stand post all the way down until it is at its lowest point. Inside of the tube you will see an adjustment screw.
- Turn the adjustment screw with a screwdriver as follows:
  a. If the lamp body does not stay in place and keeps sinking: turn the screw clockwise. This increases the tension.
  b. If the lamp body is hard to move upward: Turn the screw counter-clockwise. This decreases the tension.

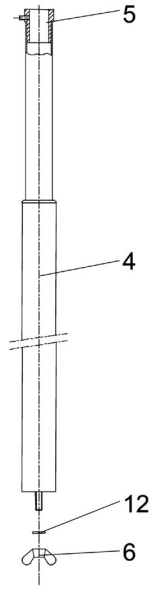
▶ 17. DISPOSAL

The floor stands do not contain any hazardous materials.

At the end of the product life, the components of the KaWe examination light are to be disposed of properly. Ensure that the materials are sorted carefully according to type. The floor stand parts are to be disposed of appropriately according to their type of material.

18. REPLACEMENT PARTS





18.1 Stand base replacement parts				
Part no.	**No. pieces**	**Part name**	**EDVNR**	**Note**
01	1	5-foot base	74905004	KaWe examination light
03	1	Centre piece for 5-foot base	74916001	
04	1	Reducing ring from Ø 40mm to Ø 25mm	74916002	
06	5	Foot, length: 310 mm	74916003	
07	5	Foot, length: 350 mm	74916004	
08	3	Castor Ø 50 mm	74916005	Only for part no. 06
09	2	Castor Ø 50 mm with brake	74916006	For part no. 06; 2 pcs./foot
10	3	Castor Ø 80 mm	74916007	Only for part no. 07
11	2	Castor Ø 80 mm with brake	74916008	For part no. 07; 2 pcs./foot
12	5	End cap	74916009	
13	1	Complete fastening set consisting of: - 1x centre piece for 5-foot base - 5x cylinder head screws DIN 912 M8x40-Zn - 1x cylinder head screw DIN 912 M8x22-Zn - 6x lock washer J8,4 DIN 6797-Zn - 5x hex nuts DIN 934 M8-8-Zn - 1x hexagon socket wrench SW6	74916010 74916011 65052062 65052108 65582018 65332009 67080226	

18.2 Floor stand replacement parts				
Part no.	**No. pieces**	**Part name**	**EDVNR**	**Note**
04	1	Telescoping stand post	52101001	
05	1	Floor stand head	52071208	
06	1	Wing nut		
12	1	Spring washer		

19. WARRANTY

The warranty is two years after the sale, provided that the device was operated as intended and according to this User's Manual (except for illumination sources, batteries and rechargeable batteries). If you have any questions, or your device requires repair, please contact your supplier.