

All Pupil II

Indirect Ophthalmoscope

INSTRUCTIONS FOR USE



Keeler
– A world without vision loss –

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	Consult instructions for use		General warning sign
	Date of manufacture		Warning: Electricity
	Manufacturer's name and address		Warning: Floor level obstacle
	Country of manufacture		Warning: Non-ionizing radiation
	Waste Electrical and Electronic Equipment (WEEE) recycling		Warning: Optical radiation
	This way up		Warning: Hot surface
	Keep dry		Conformité Européene
	Fragile		Type B applied part
	Do not use if package is damaged		Class II equipment
	Temperature limit		Atmospheric pressure limitation
	Authorised representative in the European Community		Humidity limitation
	Catalogue number		Serial number
	Translation		Medical device

The Keeler All Pupil II Instruments are designed and built in conformity with Directive 93/42/EEC, Regulation (EU) 2017/745 and ISO 13485 Medical Devices Quality Management Systems.

Classification: CE: Class I

FDA: Class II

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This IFU is also available on the Keeler UK and Keeler USA websites.

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1. INDICATIONS FOR USE

These devices are intended to be used only by suitably trained and authorised healthcare professionals.



CAUTION: Federal Law restricts this device to sale by or on the order of a physician or practitioner.

Intended use / purpose of instrument

Indirect ophthalmoscope is an AC or battery-powered device containing illumination and viewing optics; and it is intended to be used to examine the cornea, aqueous, lens, vitreous and retina of the eye. The device is intended for use by a trained healthcare professional and is mounted on the user's head.

2. SAFETY

2.1 PHOTOTOXICITY



CAUTION: The light emitted from this instrument is potentially hazardous. The longer the duration of exposure, the greater the risk of ocular damage. Exposure to light from this instrument when operated at maximum intensity will exceed the safety guideline after 35 minutes. Testing was completed with a 20D, 55mm diameter Volk lens.



While no acute optical radiation hazards have been identified for Indirect Ophthalmoscopes, we recommend keeping the intensity of the light reaching the patient's retina to the minimum possible for the respective diagnosis. Children, people with aphakia and people suffering from eye conditions are most at risk. An increased risk may also occur if the retina is exposed to the same or a similar device with a visible light source within 24 hours. This applies, in particular, if the retina has been photographed with a flashbulb in advance.

Keeler Ltd shall on request, provide the user with a graph showing the relative spectral output of the instrument.

2.2 WARNINGS AND CAUTIONS

Please note that the proper and safe functioning of our instruments is only guaranteed if both the instruments and their accessories are exclusively from Keeler Ltd. The use of other accessories may result in increased electromagnetic emissions or reduced electromagnetic immunity of the device and may lead to incorrect operation.

Observe the following precautions in order to ensure safe operation of the instruments.



WARNINGS

- Never use the instrument if visibly damaged and periodically inspect it for signs of damage or misuse.
- Check your Keeler product for signs of transport / storage damage prior to use.
- Do not use in the presence of flammable gases / liquids, or in an oxygen rich environment.
- US Federal Law restricts this device to sale by or on the order of a physician or practitioner.
- This device is intended to be used only by suitably trained and authorised healthcare professionals.
- This product should not be immersed in fluid.
- Do not disassemble or modify the battery. There are no serviceable parts inside.
- Do not dispose of battery in fire, puncture or short circuit.
- Do not use a battery that is deformed, leaking, corroded or visually damaged. Handle a damaged or leaking battery with care. If you come into contact with electrolyte, wash exposed area with soap and water. If it contacts the eye, seek medical attention immediately.
- No modification to this equipment is allowed.
- The mains plug is the means of isolating the device from the mains supply. Ensure both the power switch and mains plug are always accessible.



- Do not fit mains power adapter into a damaged mains outlet socket.



- Route power cords safely to eliminate risk of tripping or damage to user.



- Before any cleaning of the instrument or the base unit ensure the power lead is disconnected.



- Bulbs / LEDs can reach high temperatures in use – allow to cool before handling.



- Do not exceed maximum recommended exposure time.



- After removal of the bulb / LED do not touch the bulb / LED contacts and the patient simultaneously.



CAUTION

- Refraction stand variants or adaptors should only be used in combination with EN/IEC 60601-1 and EN/IEC 60601-1-2 compliant power supplies and devices.

- Use only genuine Keeler approved parts and accessories or device safety and performance may be compromised.
- Use only Keeler approved batteries, chargers and power supplies as per the accessories listed in Accessories and Spares page 23.
- The product has been designed to function safely when at an ambient temperature between +10°C and +35°C.
- Keep out of the reach of children.
- To prevent condensation from forming, allow instrument to come to room temperature before use.
- For indoor use only (protect from moisture).
- When replacing lithium battery pack, turn indirect off and attach new pack.
- Remove batteries when device may not be used for prolonged periods.
- Do not charge battery in an environment where the temperature may exceed 40°C or fall below 0°C.
- There are no user serviceable parts inside. Contact authorised service representative for further information.
- Ensure battery orientation is correct, or personal injury / damage to equipment may occur.
- Care should be taken when handling halogen bulbs. Halogen bulbs can shatter if scratched or damaged.
- Ensure device is securely held in docking station to minimise risk of injury or damage to equipment.
- Follow guidance on cleaning / routine maintenance to prevent personal injury / damage to equipment.



- Note: Lithium Ion contain no toxic heavy metals such as mercury, cadmium, or lead.



- After removal of the battery do not touch the battery contacts and the patient simultaneously.
- At product end of life dispose of in accordance with local environmental guidelines (WEEE).

2.3 CONTRAINDICATION

There is no restriction to patient population this device can be used with other than those outlined in the contraindications stated below.

Whilst BIO using a head mount can be performed through an undiluted pupil, the field of view and magnification can be greatly compromised; therefore, pupillary dilation using mydriatics is recommended in practice. Optometrists regularly perform pupil dilation to comprehensively examine the ocular fundus as part of a comprehensive eye health examination where clinically indicated. Furthermore, in order to gain a more peripheral view of the retina, scleral indentation is performed as an adjunct to the BIO when using a head mount.

3. CLEANING AND DISINFECTION INSTRUCTIONS



Before any cleaning of the instrument or the base unit, ensure the power lead is disconnected.

Only manual non-immersion cleaning as described should be used for this instrument. Do not autoclave or immerse in cleaning fluids. Always disconnect power supply from source before cleaning.

1. Wipe the external surface with a clean absorbent, non-shedding cloth dampened with de-ionised water / detergent solution (2% detergent by volume) or water / isopropyl alcohol solution (70% IPA by volume). Avoid optical surfaces.
2. Ensure that excess solution does not enter the instrument. Use caution to ensure cloth is not saturated with solution.
3. Surfaces must be carefully hand-dried using a clean non-shedding cloth.
4. Safely dispose of used cleaning materials.

For re-useable depressor only



Re-useable depressor should not be re-used if visibly contaminated with fluids or blood.

The cleaning and sterilization of reusable depressor, can be accomplished as follows:

1. Manually clean all surfaces of the units using a suitable brush and de-ionised water/ detergent solution (2% detergent by volume). Ensure all crevices are accessed and cleaned. Solution can be heated to no more than 35°C.
2. Carefully examine to ensure that all visible contamination has been removed.
3. Safely dispose of used cleaning materials.
4. Sterilize using a validated steam sterilizer complying with BS 3970 or equivalent standard. Operating cycle condition as below: 134-138°C sterilizing temperature at 2.25 bar operating pressure for minimum of 3 minutes hold time.



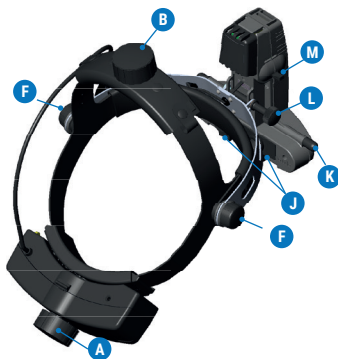
Following cleaning and/or sterilisation processes inspect the device to ensure all visible soil has been removed and the device operates as intended and is suitable for its intended use. Do not use if damaged. Dispose of safely.

The useful life of the device is determined by the wear and damage during use.

4. SETTING UP AND USING THE VANTAGE PLUS

4.1 DESCRIPTION OF THE PRODUCT

- A Headband Size Adjuster
- B Headband Height Adjuster
- C Cushioned Padded Liners
- D Aperture Control Lever
- E Headband Dimmer Switch
- F Brow Bar Adjuster
- G Front Window
- H Binocular Block
- I Brow Bar
- J Interpupillary Distance Setting Control
- K Mirror Angle Control
- L Optics Hinge Adjuster
- M Filter Selector Bar



4.2 HEADBAND ADJUSTMENT

Comfortable Fit

Adjust the Height and Size Adjusters (A and B) so that the Indirect is supported comfortably, as shown in figs 1 and 2.

Ophthalmoscope Angle Alignment

Position the Brow Bar (I) such that the Binocular Block (H) is set on the optical axis.

The Brow Bar (I) may be correctly positioned by loosening the Brow Bar Adjusters (F). When in the correct position secure by tightening (F) as shown in fig 3.

Position the All Pupil II as close to the eyes as possible for maximum field as shown in fig 4. by using the Optics Hinge Adjuster (L).



fig.1

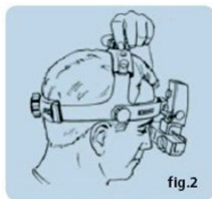


fig.2

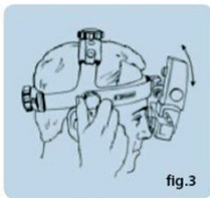


fig.3

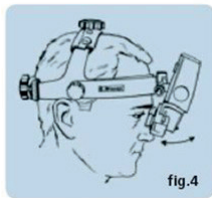


fig.4

Interpupillary Distance Setting Control (J)

Because the eyes are dissociated, particular care must be taken to ensure the optics (eyepieces) are set properly in front of each eye.

Always set the Aperture Control Lever (D) to the large light patch for this exercise.

Place an object, approximately 40cm from the face and centre it horizontally in the light patch. Then, close one eye. Slide the Interpupillary Distance Setting Control (J) of the open eye (located directly under each eyepiece) so that your object moves into the centre of the field, keeping the object in the centre of the light patch. Repeat for the other eye.

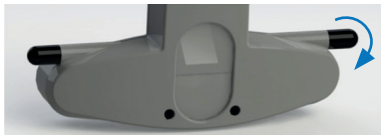
Obtaining a fused image

Ensure that a singular, fused image is obtained as follows:



Mirror Angle Control (K)

The light is positioned vertically into the upper two thirds of the field of view by rotating the spindle (K) located on either side of the Binocular Block.



Headband Dimmer Switch (E)

Turn the illumination on by rotating the headband dimmer switch (E) in a clockwise direction.



Aperture Control Lever (D)

The Aperture Control Lever (D) changes the aperture size to view through large, medium and small pupils.

Select either the large, intermediate, or small aperture by adjusting lever from left to right -small -intermediate -large.

Large

- The large, round homogenous patch is suitable for routine examinations through fully dilated pupils.

Intermediate

- The intermediate patch is designed to reduce reflections when entering a partially or poorly dilated pupil (3mm). It is also ideal for closer inspection of particular fundal areas.

Small

- This light patch is ideal for small, undilated pupils.



Filter Selector Bar (M)

The All Pupil II has three selectable filters built into the head unit. Select the appropriate filter by sliding the Filter Selector Bar (M) either left or right from its mid position, using the marked dots to indicate in which direction to slide for each filter.



Red-free filter

To increase contrast for assessment of changes in fine vessels, i.e. retinal haemorrhages.



Cobalt Blue filter

Used with fluorescein dye for the detection and examination of corneal scars and abrasions.



Diffuser

This extra wide beam of diffused light permits a more relaxed technique during more challenging fundus examinations.



The instrument provides protection from UV / IR.

5. WIRELESS CHARGERS

5.1 POWER SUPPLY ASSEMBLY

Set Plug

Replace the blanking plate with the appropriate mains plug adaptor if required, or use IEC 60320 TYPE 7 connector (not supplied).

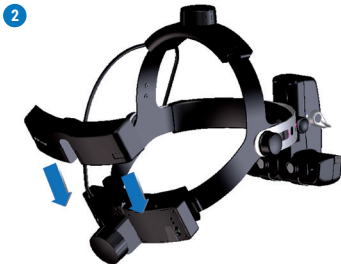
5.2 STANDARD LITHIUM-ION

Inserting / replacing the Battery Pack

1. Release battery by pressing release button and lift the battery pack from cradle.
2. To insert new battery pack, place in cradle until fully engaged.



Press release button



5.3 STANDARD SLIMLINE LITHIUM-ION

Inserting / replacing the Battery Pack

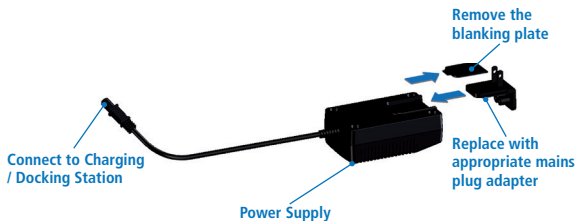
1. Release the battery by pressing release button and lift Battery Pack from cradle.
2. To insert new Battery Pack, place in the cradle until fully engaged.



5.4 CHARGING

1. Replace the Blanking Plate with the appropriate mains plug adapter and connect the plug on cable to power input socket on charger.

Switch on your Lithium Charger by plugging it into a mains outlet.



2. Place your spare Battery Pack or Headset into your Lithium Charger.



Headband Battery Holder

Flashing LED – Battery requires charging.

Charging Station

● No indicator – Battery is fully charged.

☀ Flashing indicator – Top up Charge.

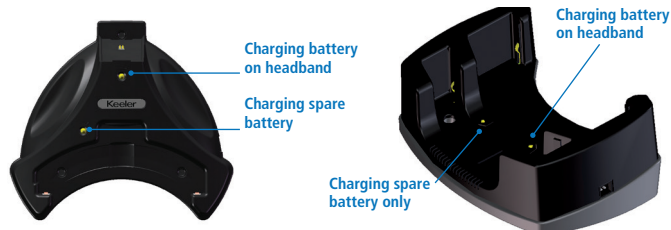
○ Solid indicator – Rapid Charge.

The Battery Pack can be used at any time during the charging cycle and will automatically resume charging when Battery Pack is placed back in the Charger.

Direction arrow on Charger indicates which battery is being charged.

Slimline Lithium Ion

Standard Lithium



5.5 CHARGING CYCLE

Slimline Lithium-Ion

The Battery attached to the Indirect will take approximately 2 hours to fully charge.

The Battery will last approximately 1 hour on full power. The Spare Battery will take 2 hours to charge.



Standard Lithium-Ion

The Battery attached to the Indirect will take approximately 2 hours to fully charge.

The Battery will last approximately 2 hours on full power. The Spare Battery will take 4 hours to charge.

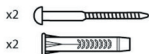


6. WIRELESS CHARGERS – WALL MOUNTING

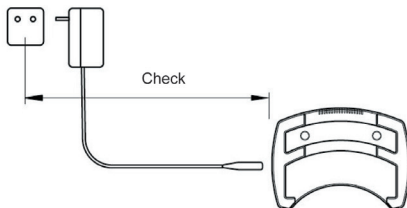
Use template document provided to mark position of charger and drill holes.



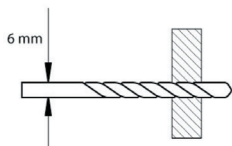
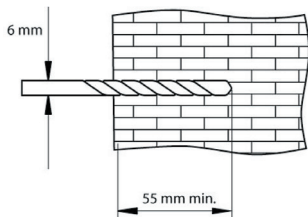
1



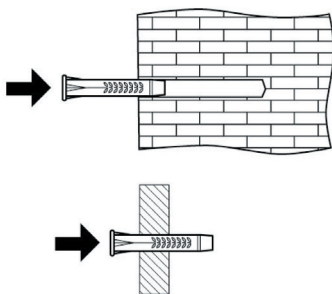
2



3  **Caution**



4



7. SMARTPACK AND WALLPACK

7.1 PARTS LIST

A Hex Key

B Screws

C Screws

D Wall Plugs

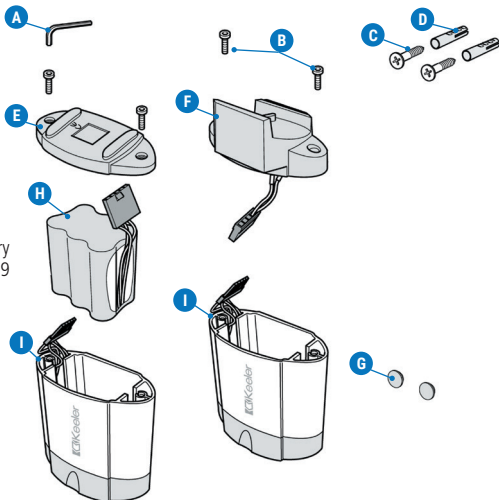
E Base Cap

F Wall Mount

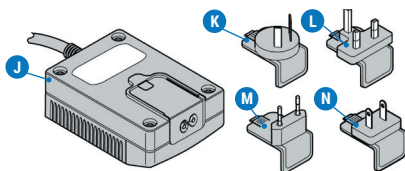
G Adhesive Pads

H Rechargeable battery
Part No. EP39-22079

I Body

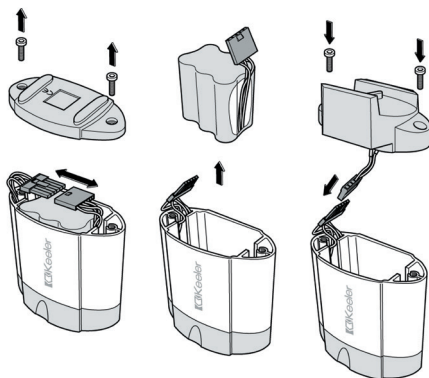


- J Power Supply
- K Australian Plug
- L UK Plug
- M Euro Plug
- N USA Plug



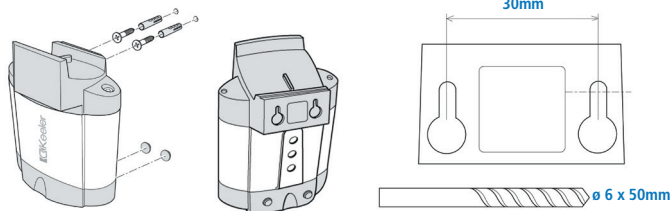
7.2 POWER CONVERSION

Convert to either WallPack or SmartPack by following the illustration below.



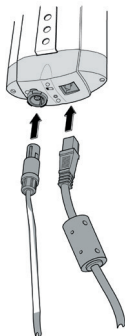
7.3 FIXING THE WALL MOUNT

Use the wall plugs and screws to mount the WallPack unit, attach the adhesive pads to the side of the case.



Connection

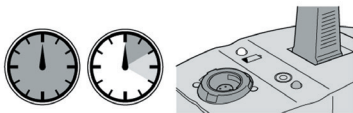
Insert the connectors into the sockets as shown. Before connecting ensure that both the dimmer control and mains outlet are switched off.



Charge Time

Charge the battery for 12-14 hours before initial use. Note: The unit becomes warm when charging, this is normal.

Recharging may take place while the Indirect is in use. Normal battery life is 1.5 to 5 hours depending on setting with a recharge time of two hours or on continuous trickle.



LED Displays



Slow Pulse



Fast Pulse

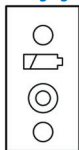


LED On

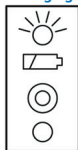


LED Off

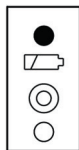
Charging



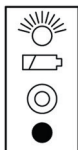
Trickle Charging



In Use



Battery Low

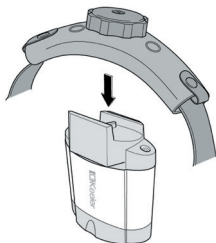


Power Supply Battery

Insert or remove the Indirect plug or switch the Indirect ON / OFF.

Power Supply Mains

- Switch the Indirect ON / OFF
- Insert or remove the mains plug
- Place on or off the cradle switch
- Green LED illuminates when Indirect is switched on

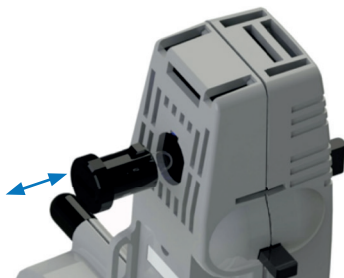


8. BULB / LED REPLACEMENT



Caution: Bulbs / LEDs can reach high temperatures in use – allow to cool before handling.

Disconnect the instrument from the electrical supply. Remove the bulb / LED from the back of the instrument and insert the replacement, ensuring that the bulb / LED key is aligned with the aperture and securely pushed in.



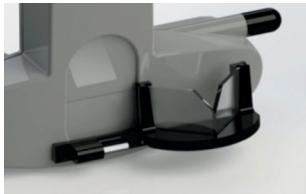
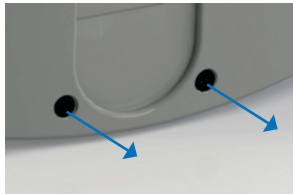
8.1 ALL PUPIL II LED

All Pupil II bulbs can be replaced with an LED light source if required. Follow fitting instructions as for bulbs.



9. TEACHING MIRROR

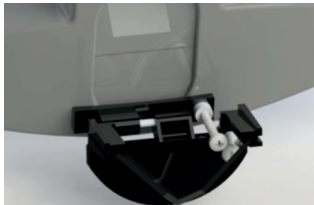
1. Remove the screws from the panel beneath the front window with the screwdriver supplied.
2. Fit the mounting bar with the pin pointing to the right and secure with the screws removed in step (1). Slide the Teaching Mirror onto the pin on the mounting bar. The Teaching Mirror can now be swivelled up and down.



To remove, slide the Teaching Mirror to the right of the pin and return to its case leaving mounting bar in position.

To make the Teaching Mirror non-removable for security purposes proceed as follows:

3. Remove the screws as in step (1). Position the mounting bar and replace the screw on left side only. Fit the Teaching Mirror as in step (2).
4. Fold the Teaching Mirror down and slide it to the right to reveal fixing hole. Then secure the mounting bar with the special washer and pan head screw provided.



5. Return the Teaching Mirror to its central position.

The Teaching Mirror can now be demounted only by removing the screw. Retain the screwdriver for future use.

9.1 EYEPIECE CAPS

Eyeiece Caps are provided to protect spectacles and have rubber surrounds to prevent scratching. To use, simply fit over the eyepieces. Replacements are available from the distributor.

9.2 PLANO LENSES

The Keeler All Pupil II is supplied with +2D lenses as standard. Plano lenses, if preferred, are also available from the distributor. These are included in certain API II kits.

10. SPECIFICATIONS AND ELECTRICAL RATINGS

The Keeler All Pupil II BIO is a medical electrical instrument. The instrument requires special care concerning electromagnetic compatibility (EMC). This section describes its suitability in terms of electromagnetic compatibility of this instrument. When installing or using this instrument, please read carefully and observe what is described here.

Portable or mobile-type radio frequency communication units may have an adverse effect on this instrument, resulting in malfunctioning.

10.1 ELECTROMAGNETIC EMISSIONS

Guidance and manufacturer's declaration – electromagnetic emissions

The Keeler All Pupil II is intended for use in the electromagnetic environment specified below. The customer or user should assure that it is used in such an environment.

Emissions test		Compliance	Electromagnetic environment – guidance
Charger only	RF emissions CISPR 11	Group 1	The Keeler All Pupil II uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
	RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2		Class A	The Keeler All Pupil II is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Voltage fluctuations / flicker emissions IEC 61000-3-3		Complies	
Indirect Ophthalmoscope only	RF emissions CISPR 14-1	Complies	The Keeler All Pupil II is not suitable for interconnection with other equipment.

10.2 ELECTROMAGNETIC IMMUNITY

Guidance and manufacturer's declaration – electromagnetic immunity


The Keeler All Pupil II is intended for use in the electromagnetic environment specified below. The customer or the user should assure that it is used in such an environment.

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD). IEC 61000-4-2	± 8 kV contact ± 15 kV air	± 8 kV contact ± 15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance
Electrical fast transient/burst. IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for power supply lines	± 2 kV for power supply lines N/A	Mains power quality should be that of a typical professional healthcare facility environment.
Surge. IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) for input/output line(s)	± 1 kV line(s) to line(s) N/A	Mains power quality should be that of a typical professional healthcare facility environment.
Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000-4-11	$U_T = 0\%$ 0.5 cycle (0, 45, 90, 135, 180, 225, 270, 315°) $U_T = 0\%$; 1 cycle $U_T = 70\%$; 25/30 cycles (@ 0°) $U_T = 0\%$; 250/300 cycle	$U_T = 0\%$ 0.5 cycle (0, 45, 90, 135, 180, 225, 270, 315°) $U_T = 0\%$; 1 cycle $U_T = 70\%$; 25/30 cycles (@ 0°) $U_T = 0\%$; 250/300 cycle	Mains power quality should be that of a typical professional healthcare facility environment. If the user of the Keeler All Pupil II requires continued operation during power mains interruptions, it is recommended that the charger be powered from an uninterruptible power supply.
Power frequency (50/60 Hz) Magnetic field. IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at a level characteristic of a typical location in a typical professional healthcare facility environment.

Note: U_T is the a. c. mains voltage prior to application of the test level.

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the Keeler All Pupil II, including cables, than the recommended separation distances calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance
Conducted RF IEC 61000-4-6	6 Vrms 150 kHz to 80 MHz	6 V	$d = 1.2 \sqrt{p}$
Radiated RF IEC 61000-4-3	10 V/m 80MHz to 2.7GHz	10 V/m	$d = 1.2 \sqrt{p}$ 80MHz to 800 MHz $d = 2.3 \sqrt{p}$ 800MHz to 2.7GHz

			<p>Where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey¹, should be less than the compliance level in each frequency range.²</p> <p> Interference may occur in the vicinity of equipment marked with this symbol.</p>
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Note 1: At 80MHz and 800MHz, the higher frequency range applies.

Note 2: These guide lines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

1 Field strengths from fixed transmitters, such as base stations (cellular cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Keeler All Pupil II is used exceeds the applicable RF compliance level above, the Keeler All Pupil II should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orientating or relocating the Keeler All Pupil II.

2 Over the frequency range 150kHz to 80 MHz, field strengths should be less than 10 V/m.

10.3 RECOMMENDED SAFE DISTANCES

Recommended separation distances between portable and mobile RF communications equipment and the Keeler All Pupil II.

The Keeler All Pupil II is intended for the use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Keeler All Pupil II can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Keeler All Pupil II as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (W)	Separation distance according to frequency of transmitter (m)		
	150 kHz to 80MHz $d = 1.2\sqrt{p}$	80MHz to 800MHz $d = 1.2\sqrt{p}$	800MHz to 2.7GHz $d = 2.3\sqrt{p}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be determined using the equation applicable to the frequency of the transmitter, where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note: At 80MHz and 800MHz, the separation distance for the higher frequency applies.


These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

10.4 TECHNICAL SPECIFICATIONS

All Pupil II

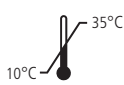

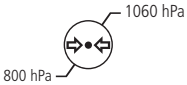
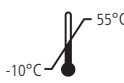


Input mains data:	100-240V – 50/60Hz
Power supply rating:	12V: 2.5amps
Operation:	Continuous
Classification:	Class II equipment Type B applied part

API II LED

Voltage:	6V DC
Light output:	Minimum 1500 LUX ¹
 Optical radiation complies with BS EN ISO 15004-1	

NOTE 1: Measured at 440mm from front window

Environmental Conditions:

USE		
		
Shock (without packing)	10 g, duration 6 ms	
STORAGE CONDITIONS		
		

TRANSPORT CONDITIONS	
Vibration, sinusoidal	10 Hz to 500 Hz: 0.5g
Shock	30 g, duration 6 ms
Bump	10 g, duration 6 ms

11. ACCESSORIES AND SPARES

Item	Part Number
AP II Halogen Bulb	1012-P-5110
AP II Bulbs (qty 2)	1012-P-7003
AP II LED Upgrade Kit	1012-P-7008
Large depressor	1201-P-6067
Small depressor	1201-P-6075
AP II Teaching Mirror	1202-P-7117
AP II LED	1205-P-5014
Binocular Indirect Face Shield	1205-P-7034
Standard battery pack for wireless AP II	1919-P-1013
Slimline battery for wireless AP II	1919-P-5338
Wallpack for wired AP II	1945-P-1000
Smartpack for wired AP II	1945-P-1001
Slimline charger for wireless AP II	1945-P-5019
Standard charger for wireless AP II	1945-P-5334
Volk 20D Black Condensing Lens	2105-K-1159
Lens Cloth	2199-P-7136
AP II Accessory Case	3412-P-5100
Indirect Carry Case	3412-P-7000

12. WARRANTY

The Keeler All Pupil II product is guaranteed for 3 years and will be replaced, or repaired free of charge subject to the following:

- Any fault due to faulty manufacture
- The instrument and accessories have been used in compliance with these instructions.
- Proof of purchase accompanies any claim.

Please note:

- The API II LED is guaranteed for 5 years.
- Batteries are covered by this warranty statement for 1 year only.



The manufacturer declines any and all responsibility and warranty coverage should the instrument be tampered with in any manner or should routine maintenance be omitted or performed in manners not in accordance with these manufacturer's instructions.

There are no user serviceable parts in this instrument. Any servicing or repairs should only be carried out by Keeler Ltd. or by suitably trained and authorised distributors. Service manuals will be available to authorised Keeler service centres and Keeler trained service personnel.

13. PACKAGING AND DISPOSAL INFORMATION

Disposal of old electrical and electronic equipment



This symbol on the product or on its packaging and instructions indicates that this product shall not be treated as household waste.

To reduce the environmental impact of WEEE (Waste Electrical Electronic Equipment) and minimise the volume of WEEE entering landfills we encourage at product end of life that this equipment is recycled and reused.

If you need more information on the collection reuse and recycling then please contact B2B Compliance on 01691 676124 (+44 1691 676124). (UK only).

Any serious incident that has occurred in relation to the device must be reported to the manufacturer and the competent authority of your Member State.

Contact



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China Office

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REP

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