Vantage Plus and Vantage Plus LED

Indirect Ophthalmoscope





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[]i	Consult instructions for use	\triangle	General warning sign
س	Date of manufacture	4	Warning: Electricity
***	Manufacturer's name and address	<u>~</u>	Warning: Floor level obstacle
₩	Country of manufacture	(0;1)	Warning: Non-ionizing radiation
	Waste Electrical and Electronic Equipment (WEEE) recycling	*	Warning: Optical radiation
<u> </u>	This way up	<u></u>	Warning: Hot surface
*	Keep dry	C€	Conformité Européene
Ţ	Fragile	†	Type B applied part
®	Do not use if package is damaged		Class II equipment
1	Temperature limit	€•• €	Atmospheric pressure limitation
EC REP	Authorised representative in the European Community	Ø	Humidity limitation
REF	Catalogue number	SN	Serial number
A ⇒文	Translation	MD	Medical device

The Keeler Vantage Plus and Vantage Plus LED 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 USF

NOTE: For users of the Vantage Plus Digital Indirect Ophthalmoscope, this instructions for use document must be read in conjunction with the instructions for use document (part number EP59-09863) for the Vantage Plus Digital.

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.

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 4.5 minutes. Testing was completed with a 20D, 55mm diameter Volk lens.

While no acute optical radiation hazards have been identified for Indirect Instruments, 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.

VANTAGE PLUS AND VANTAGE PLUS LED by KEELER

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.



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 contra-indications 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 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.

- 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.
- 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:

- 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.
- 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.

SETTING UP AND USING THE VANTAGE PLUS 4



4.2 HEADBAND ADJUSTMENT

Comfortable Fit

Adjust the size (A) fig.1 and the height (B) fig.2, so that the instrument is supported comfortably around and on top of the head.

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4.3 OPHTHAI MOSCOPE ANGLE ALIGNMENT

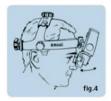
For vertical alignment of the eyepieces and binocular block (O), adjust the height of the Metal Outer Brow Bar (C) if necessary by using the Brow Band Tension Knob (D) and/or the Ophthalmoscope Angle Knob (E), located on the sides of the headset (fig 3).

Position the Binocular Block (O) as close to the eyes or spectacles as possible for maximum field of view. Slightly loosen the Ophthalmoscope Angle Knob (E) to allow for adjustment and tighten when in position as in (fig 4).









4.4 INTERPUPILLARY DISTANCE SETTING CONTROL (S)

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 Selection (H) 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 PD Control (S) 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.

4.5 OBTAINING A FUSED IMAGE

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





Separate images

Fused image

veriapping

4.6 MIRROR ANGLE CONTROL (J)

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

4.7 HEADBAND DIMMER SWITCH (T)

Turn the illumination on by rotating the Headband Dimmer Switch (T) in a clockwise direction. Turn the illumination off or dim by rotating the Headband Dimmer Switch (T) in an anticlockwise direction.

4.8 SETTING THE APERTURE

By rotating the knob (H) different apertures may be selected.

The Keeler Vantage Plus has 3 light apertures which offer maximum stereopsis. When you select the aperture the illumination and viewing mirrors automatically adjust for maximum stereopsis.



Large

The large, round homogenous patch is suitable for routine examinations through fully dilated pupils. In this position the mirror remains in the forward position and the optics are diverged.

Intermediate

O 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, the mirror and optics stay in the mid position.

Small

This light patch is ideal for small, undilated pupils. The mirror moves back, and the
optics automatically converge.

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4.9 SELECTING FILTERS

By rotating the Lever (I), different filters may be selected.



Cohalt Blue filter

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



White Circle

Clear light: select the clear with no filter when inspecting a specific pathology and a brighter, whiter light is desired.



Green filter

Red Free filter: this filter reduces the red light, so blood will appear black, silhouted against a dark background.



Diffuser

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



WIRELESS CHARGERS

5 1 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.



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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 the cable to the 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 as shown.



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.

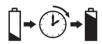


5.5 CHARGING CYCLE

Slimline Lithium-Ion

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

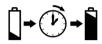
The Battery will last approximately 1 hour on full power. The Spare Battery will take 2 hours to charge.



Standard Lithium-Ion

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

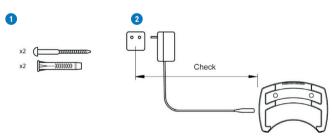
The Battery will last approximately 2 hours on full power. The Spare Battery will take 4 hours to charge.

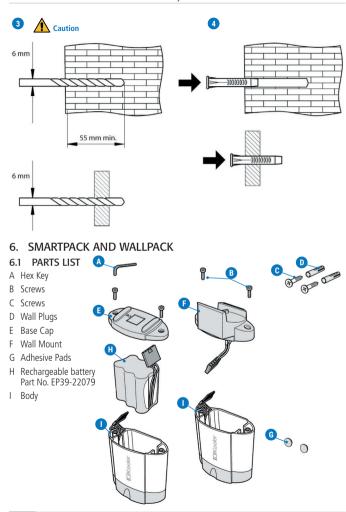


5.6 WALL MOUNTING

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

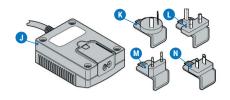






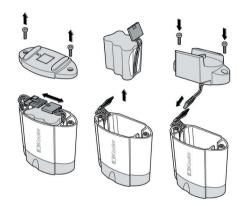
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- J Power Supply
- K Australian Plug
- L UK Plua
- M Euro Plug
- N USA Plug



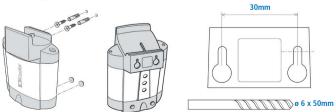
6.2 POWER CONVERSION

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



6.3 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.









6.4 LED DISPLAYS



Slow Pulse



Fast Pulse



LED On



LED Off





Trickle



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 LFD illuminates when Indirect is switched on



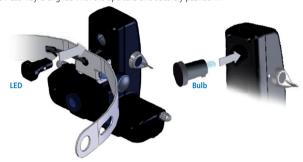
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7. BULB / LED REPLACEMENT



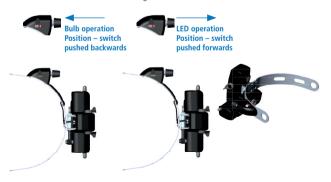
Caution: Bulbs / LEDs can reach high temperatures in use – allow to cool before handling.

Allow bulb / LED to cool and disconnect the instrument from the electrical supply. Remove the bulb / LED from the back of the instrument and insert the new bulb / LED, ensuring that the bulb / LED key is aligned with the aperture and securely pushed in.



Changing headband rheostat from Bulb to LED operation

Your Vantage Plus LED is already set to LED operation. If you want to change to Bulb operation, please move the switch backwards as shown in diagram. To return to LED operation, please move the switch forwards as shown in diagram.



8. FITTING YOUR HIMAG™ LENS (M) AND TEACHING MIRROR (N)

To fit the HiMag™ lens simply push it onto the front of the window as shown in the diagram. To remove simply reverse.



Rubber EyeCaps

Rubber eyecaps are provided to protect spectacles and have been manufactured in rubber to avoid any abrasions. To use, simply fit over the eyecaps.

Plano Lenses

The Keeler Vantage Plus supplies as standard 2+ dioptre lenses. Plano lenses, if preferred are available and can be fitted as shown in fig.5.

Scleral Depressors

Scleral Depressors are avaiable to view the ora serrata.



The Keeler Vantage Plus and Vantage Plus LED are 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.

9.1 FLECTROMAGNETIC EMISSIONS

Guidance and manufacturer's declaration – electromagnetic emissions

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

9.2 ELECTROMAGNETIC IMMUNITY

Guidance and manufacturer's declaration - electromagnetic immunity

The Keeler Vantage Plus or Vantage Plus LED 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%
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.

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance
Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000-4-11	$U_{\text{T}} = 0\% \ 0.5 \text{ cycle}$ (0, 45, 90, 135, 180, 225, 270, 315°) $U_{\text{T}} = 0\%$; 1 cycle $U_{\text{T}} = 70\%$; 25/30 cycles (@ 0°) $U_{\text{T}} = 0\%$; 250/300 cycle	$U_{T} = 0\% \ 0.5 \text{ cycle}$ (0, 45, 90, 135, 180, 225, 270, 315°) $U_{T} = 0\%; 1 \text{ cycle}$ $U_{T} = 70\%;$ 25/30 cycles (@ 0°) $U_{T} = 0\%;$ 25/300 cycle	Mains power quality should be that of a typical professional healthcare facility environment. If the user of the Keeler Vantage Plus or Vantage Plus LED 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 Vantage Plus or Vantage Plus LED, 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 √ 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

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance	
			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).	
			Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ¹ , should be less than the compliance level in each frequency range. ²	
			Interference may occur in the vicinity of equipment marked with this symbol.	

Note 1: At 80MHz and 800MHz, the higher frequency range applies.

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

9.3 RECOMMENDED SAFE DISTANCES

Recommended separation distances between portable and mobile RF communications equipment and the Keeler Vantage Plus LED.

The Keeler Vantage Plus or Vantage Plus LED is intended for the use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Keeler Vantage Plus or Vantage Plus LED can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Keeler Vantage Plus or Vantage Plus LED 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√p	80MHz to 800MHz d = 1.2√p	800MHz to 2.7GHz d = 2.3√ 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	

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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 Vantage Plus or Vantage Plus ED is used exceeds the applicable RF compliance level above, the instrument should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorientating or relocating the Keeler Vantage Plus or Vantage Plus LED.

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

For transmitters rated at a maximum output power not listed above, the recommended separation distance din 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.

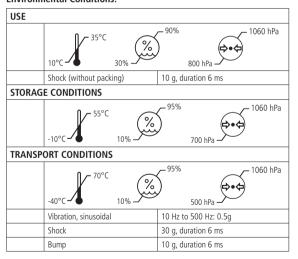
Note: At 80MHz and 800MHz, the separation distance for the higher frequency applies.

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

9.4 TECHNICAL SPECIFICATIONS

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

Environmental Conditions:



10. ACCESSORIES AND SPARES

Item	Part Number
Replacement Bulb	1012-P-5241
Large depressor	1201-P-6067
Small depressor	1201-P-6075
HiMag™ Lens	1202-P-7192
Binocular Indirect Face Shield	1205-P-7034
Standard battery pack for wireless Vantage Plus	1919-P-1013
Slimline battery for wireless AP II	1919-P-5338
Standard charger for wireless Vantage Plus	1941-P-5335
Slimline charger for wireless Vantage Plus	1945-P-5019
Volk 20D Black Condensing Lens	2105-K-1159
Lens Cloth	2199-P-7136
Indirect Carry Case	3412-P-7000

11. 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.

12. WARRANTY

The Keeler Vantage Plus and Vantage Plus LED products are 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 LED for the Vantage Plus LED models 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.

Contact



Manufacturer

Keeler Limited Clewer Hill Road Windsor Berkshire SL4 4AA UK

Freephone 0800 521251 Tel +44 (0) 1753 857177 Fax+44 (0) 1753 827145

USA Sales Office

Keeler USA 3222 Phoenixville Pike Building #50 Malvern, PA 19355 USA **Toll Free** 1 800 523 5620 **Tel** 1 610 353 4350 **Fax** 1 610 353 7814

India Office

Keeler India
Halma India Pvt. Ltd.
Plot No. A0147, Road No. 24
Wagle Industrial Estate
Thane West — 400604, Maharashtra
INDIA
Tel +91 22 4124 8001

China Office

Halma China Group 名称:沃迈(上海)机电有限公司 地址:上海市闵行区金都路1165弄 123号23幢一号厂房三层B座 电话:021-6151 9025



Visiometrics, S. L., Vinyals, 131 08221 Terrassa, Spain

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