

Vantage Plus and Vantage Plus LED

Indirect Ophthalmoscope

Instructions for use



Keeler

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1 . Copyright and trademarks

The information contained within this manual must not be reproduced in whole or in part without the manufacturer's prior written approval.

As part of our policy for continued product development we reserve the right to make changes to specifications and other information contained in this document without prior notice.

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2. Introduction

Thank you for purchasing the Keeler Vantage Plus Indirect Ophthalmoscope.

We have taken the greatest care in the design, development and manufacture of this product to ensure that you get many years of trouble free service. However, it is important that you read the descriptions, installation and operating instructions carefully prior to installing or using your new indirect ophthalmoscope.

Please read and follow these instructions carefully.



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3. Symbols



Read user instructions for Warnings, Cautions and additional information



The CE mark on this product indicates it has been tested to and conforms with the provisions noted within the 93/42/EEC Medical Device Directive



Consult instructions for use



Double insulated



Manufacturers name and address



This Symbol on the Product or on its Packaging and instructions indicates that it was put on the market place after August 2005 and that this product shall not be treated as Household Waste.



Type B protections against shock



Mandatory action sign



Follow instructions for use



High voltage



Trip hazard



Optical radiation hazard



Hot surface



Non-ionizing radiation



This way up



Keep dry



Fragile



Material suitable for recycling

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4. Safety

Device classification

CE Regulation 93/42 EEC: Class I

FDA: Class II

Carefully read this Instruction Section before using your Keeler product. For your own safety and that of your customers observe all cautionary information provided in this section. The following information is intended to highlight potential safety hazards that can be associated with misuse, or damage

Warnings and cautions



Check your Keeler product for signs of transport / storage damage prior to use

Do not use if the product is visibly damaged, and periodically inspect for signs of damage

Do not use in the presence of flammable gases / liquids, or in an oxygen rich environment

This product should not be immersed in fluids

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

US Federal law restricts this device to sale by or order of a physician or practitioner



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



Route power cords safely to eliminate risk of tripping or damage to equipment



Bulbs / LED's 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

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4. Safety



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 section 12

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 any 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



Switch off the electrical supply and disconnect from the mains electrical supply before cleaning and inspection

Dispose of batteries in line with local environmental regulations

At product end of life dispose of in accordance with local environmental guidelines (WEEE)



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

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4. Safety

Safety considerations



It is well established that exposure of the eye to intense light sources for extended periods of time poses a risk of retinal photic injury. Many ophthalmic instruments illuminate the eye with intense light. The decision about the intensity of the light level to use in any procedure must be made on a case to case basis. In each case, the clinician must take a risk benefit judgement about the intensity of light to be used. Use of insufficient intensity may result in inadequate visualization and in adverse effects more serious than retinal photic damage. Further, despite all efforts taken to minimise the risk of retinal damage, damage may still occur. Retinal photic injury is a possible complication of the need to use bright light clearly visualize ocular structure during delicate ophthalmic surgical procedure.

While no visible retinal lesions have been identified for ophthalmic instruments, it is recommended that illumination levels be set to the minimum level necessary to perform the diagnostic function. Young children and persons with diseased eyes may be at a higher risk. The risk may also be increased if the person being examined has had any exposure with the same instrument or any other ophthalmic instrument using an intense visible light source during the previous 24 hours. This will apply particularly if the eye has been exposed to retinal photography.

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 27 minutes.

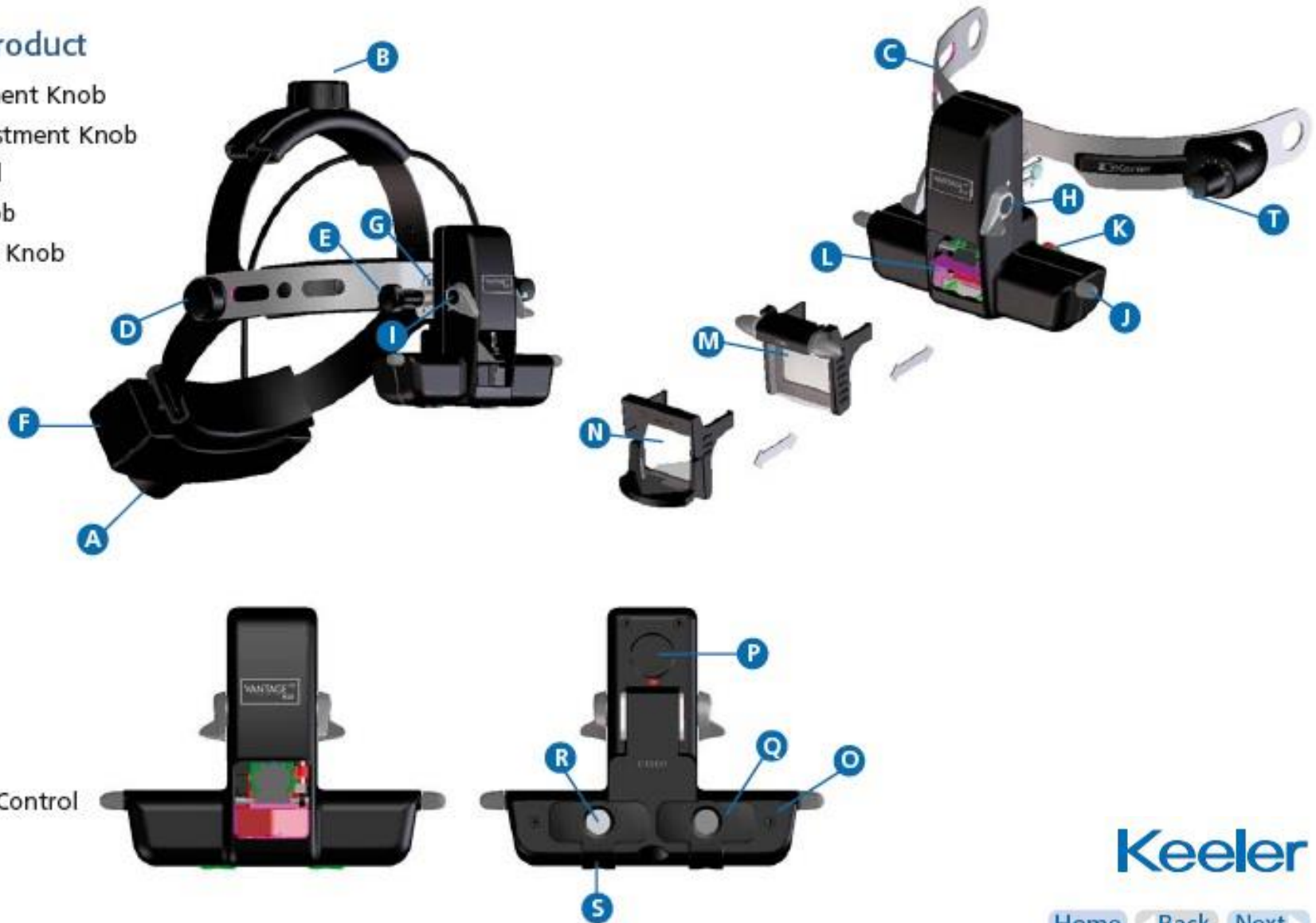
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5. Setting up and using the Vantage Plus

Description of the Product

- A Headband Size Adjustment Knob
- B Headband Height Adjustment Knob
- C Metal Outer Brow Band
- D Brow Band Tension Knob
- E Ophthalmoscope Angle Knob
- F Lithium Battery
- G Hinge System
- H Aperture Lever
- I Filter Lever
- J Mirror Angle Control
- K Individual Eyepiece
- L Front Window
- M HiMag™ Lens
- N Teaching Mirror
- O Binocular Block
- P Bulb or LED Cover
- Q Rubber Eyecaps
- R Optics of Eyepiece
- S Interpupillary Distance Control
- T Head Dimmer Switch



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5. Setting up and using the Vantage Plus

Headband Adjustment

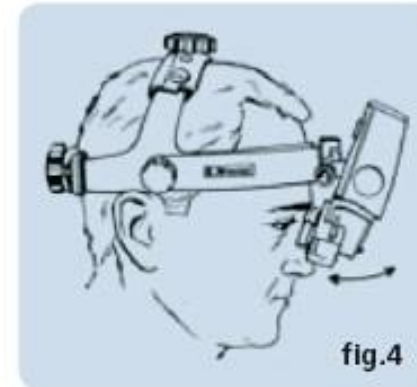
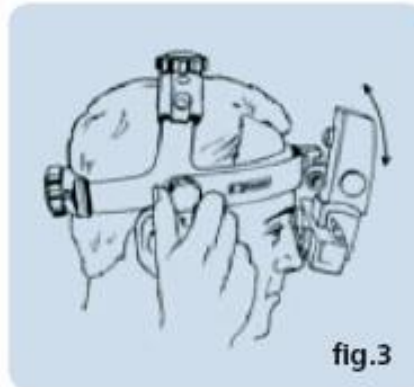
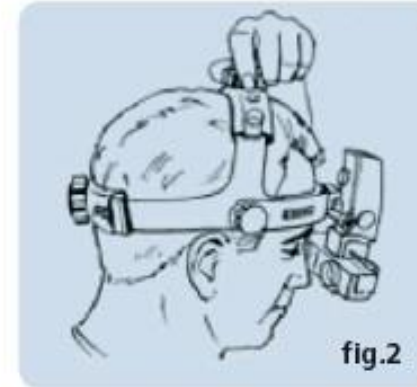
Comfortable Fit

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.

Ophthalmoscope 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 browband tension knobs (D) 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).



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5. Setting up and using the Vantage Plus

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, perhaps the thumb, approximately 40cm from the face and centre it horizontally in the light patch. Then, close one eye. Using the thumb and forefinger of the opposite hand, slide the P.D.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.

Obtaining a fused image

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



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.

Head Dimmer Switch (T)

Turn the illumination on by rotating the headband dimmer (T) in an anti clockwise direction.

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5. Setting up and using the Vantage Plus

Setting the Aperture

Aperture Lever Selection (H)

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.

Mirrors move forward/back as apertures are selected



○ Large

The large, round, homogeneous 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

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.

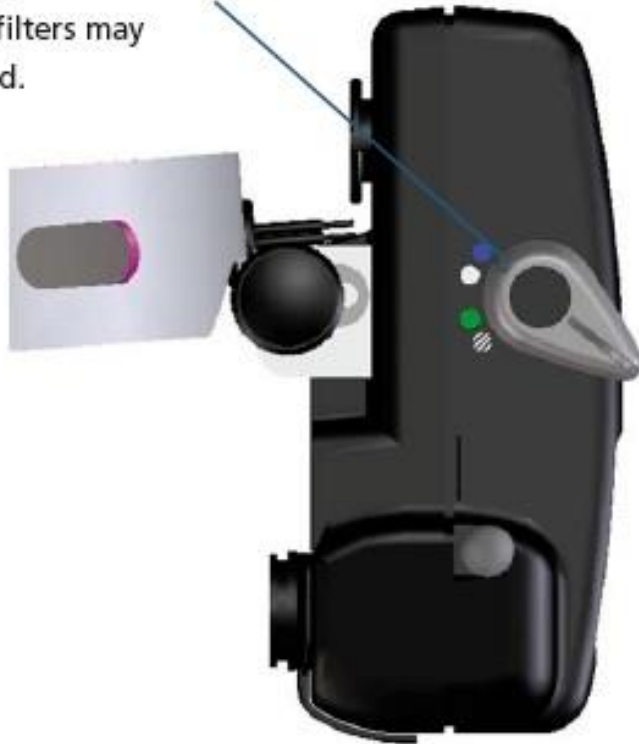
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5. Setting up and using the Vantage Plus

Filter Lever Selection (I)

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



Blue Circle

Cobalt blue filter for fluorescein angiography.



White Circle

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



Green Circle

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



Diffuser

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

Beginners may also find this aperture particularly helpful since, in order to achieve a full lens image, the alignment between the headset, the condensing lens and the pupil is

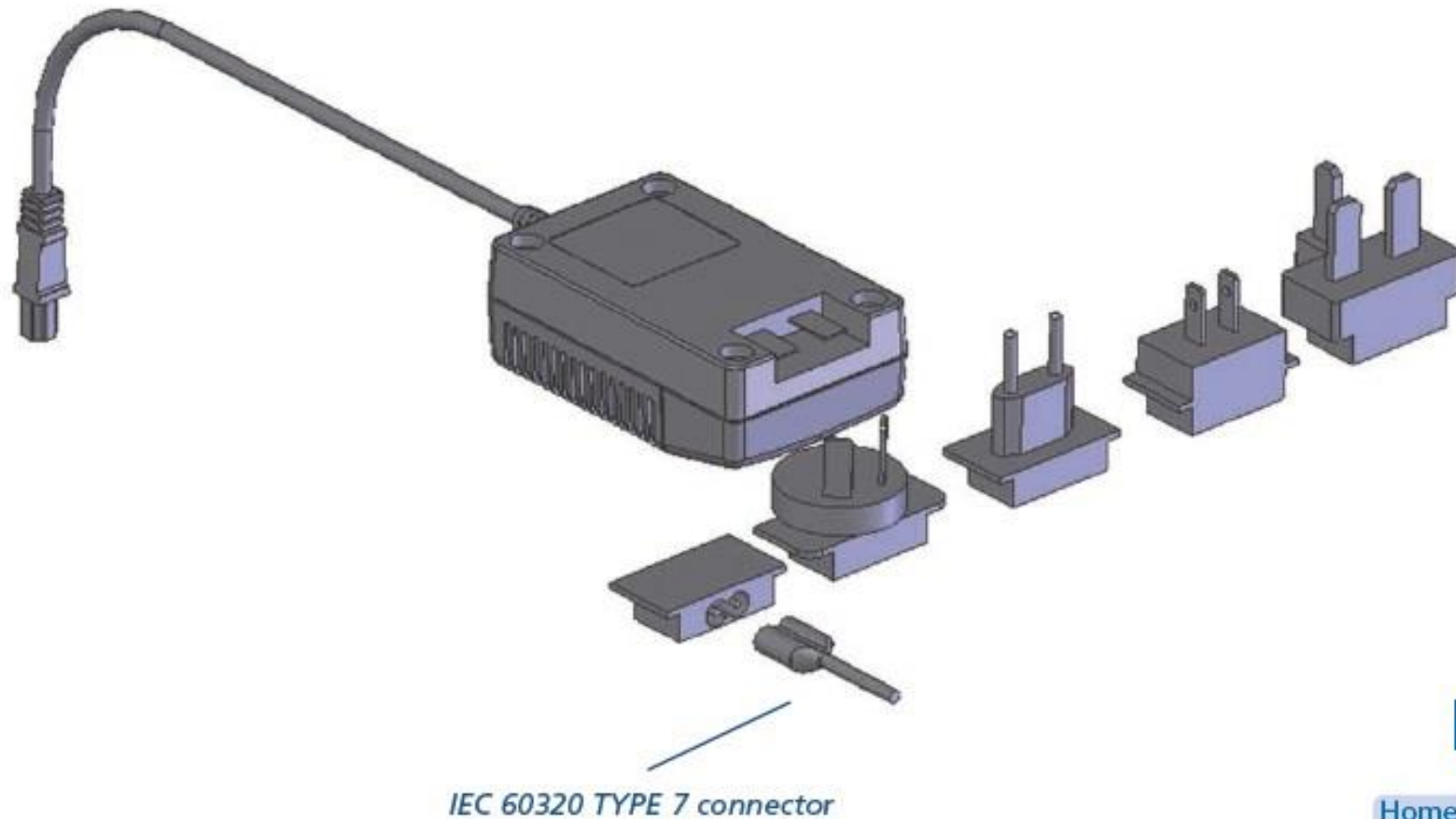
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6. Wireless chargers – power supply assembly

Set plug

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



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6. Wireless chargers – Standard Lithium

Inserting/replacing the Battery Pack

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



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6. Wireless chargers – Slimline Lithium-ion



Inserting/replacing the Battery Pack

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



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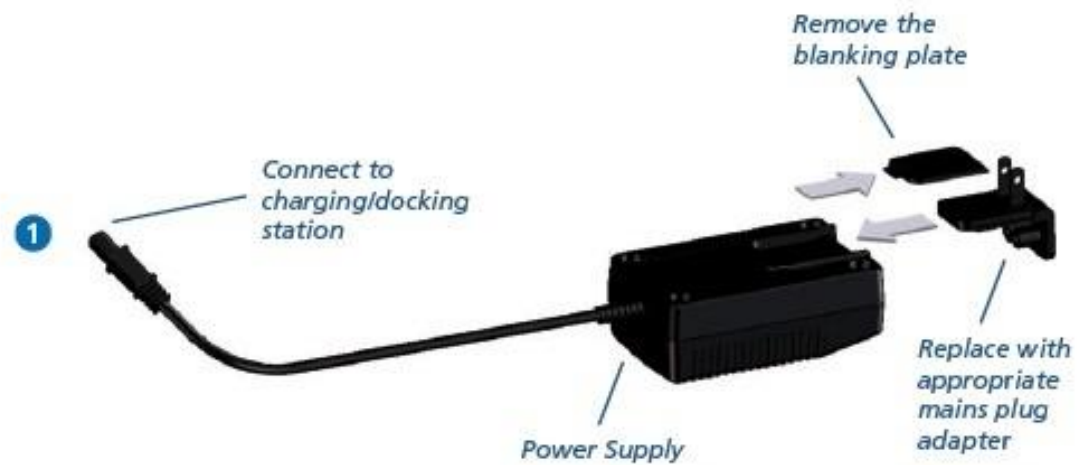
6. Wireless chargers

Charging

1. Replace the blanking plate with the appropriate mains plug adapter, and connect 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 as shown.



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6. Wireless chargers

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.

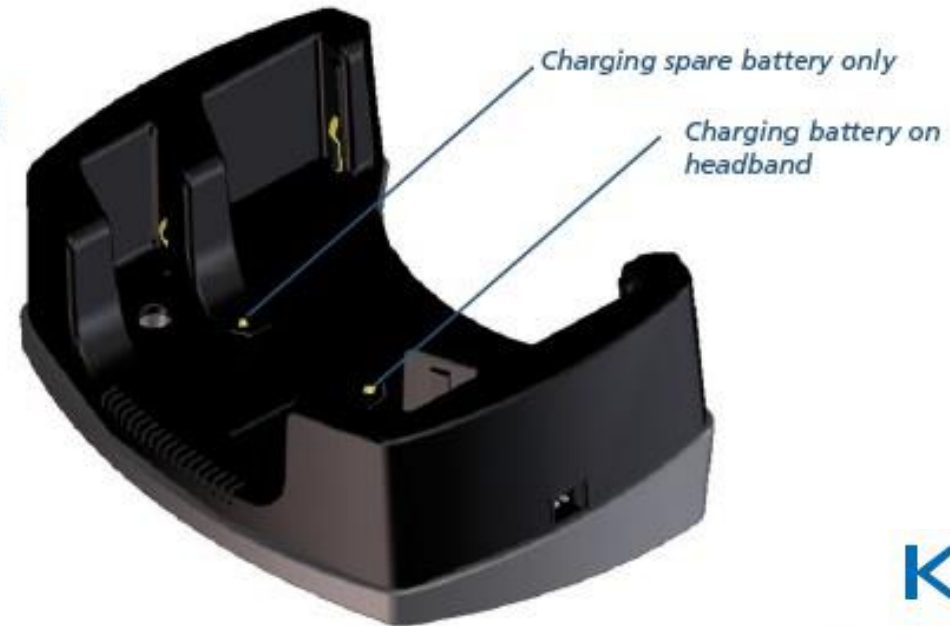
The battery pack can be used at any time during the charging cycle and will automatically resume charging when battery pack is placed back in the charger.

Direction arrow on charger indicates which battery is being charged.

Slimline Lithium ion



Standard Lithium



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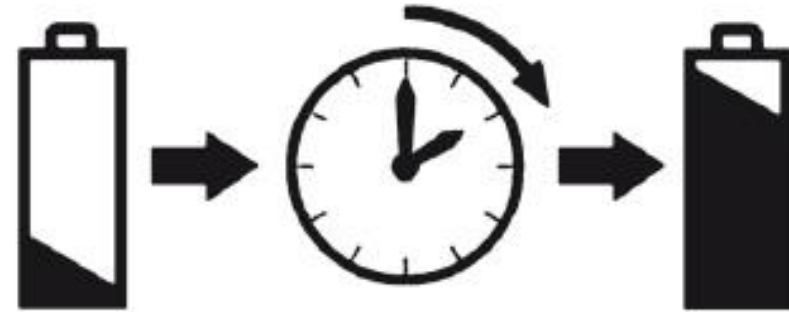
6. Wireless chargers

Charging Cycle - Standard Lithium

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.

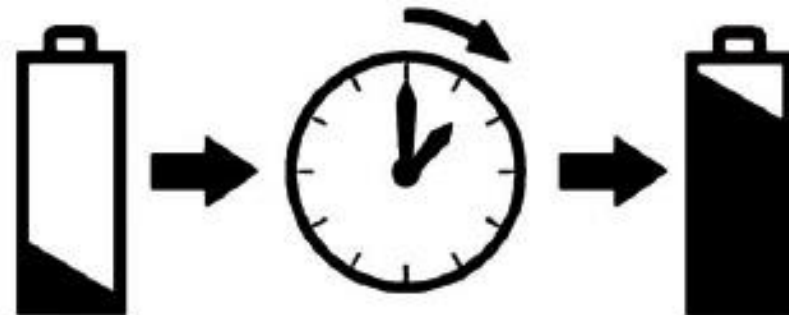


Charging Cycle - Slimline Lithium ion

The battery attached to the indirect will take approximately 1½ hours to fully charge.

The battery will last approximately 1 hour on full power.

The spare battery will take 1½ hours to charge.

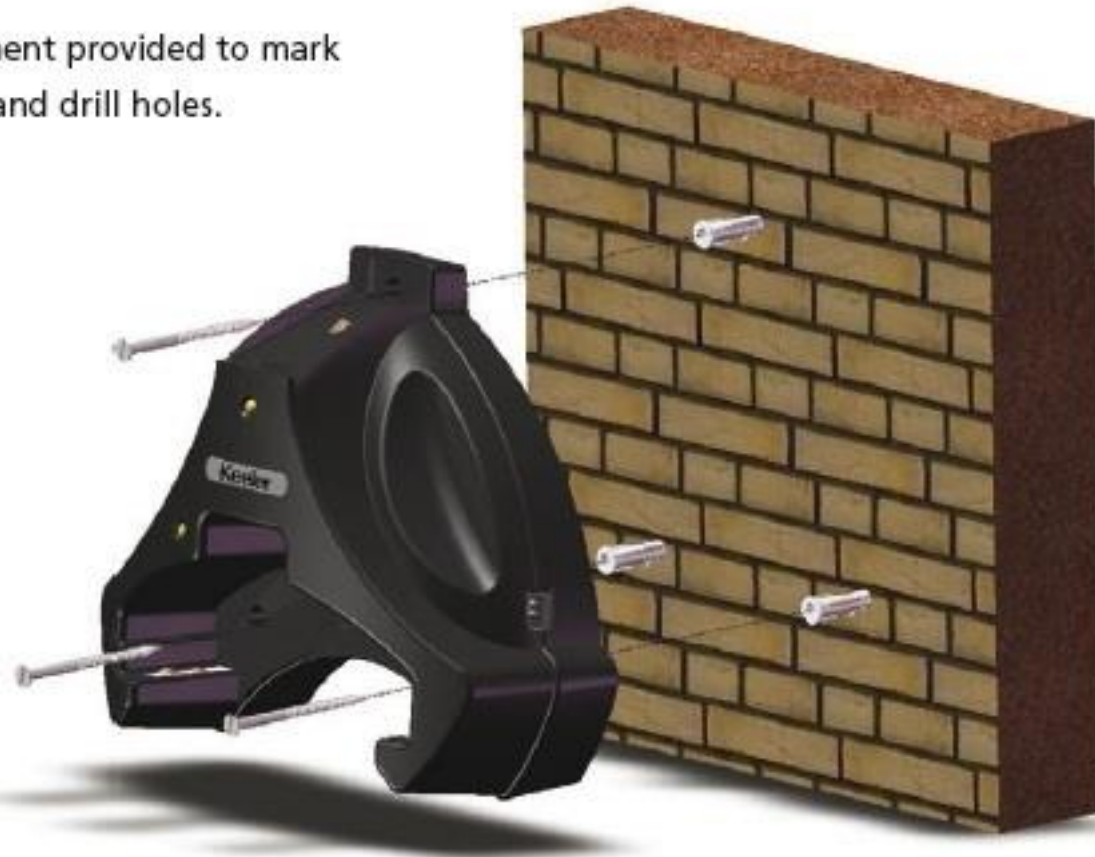


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6. Wireless chargers – wall mounting

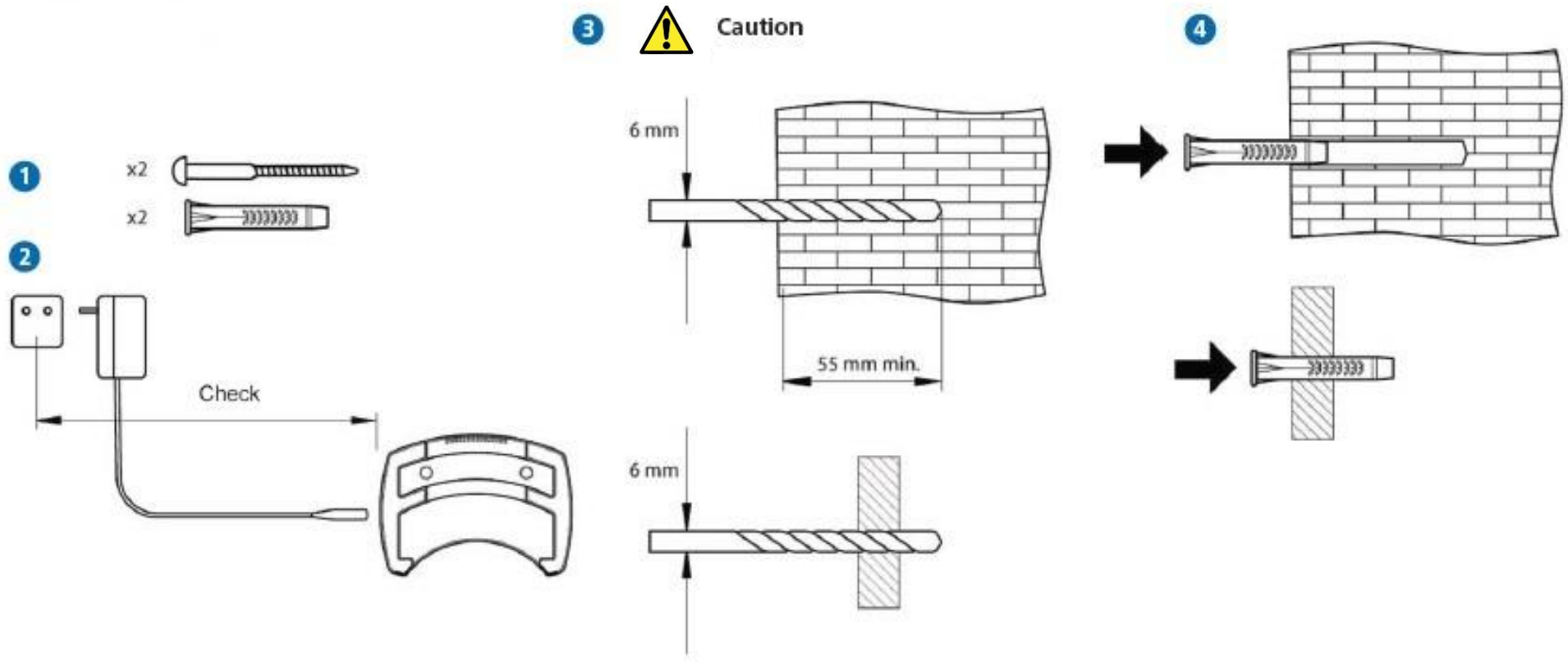
Use template document provided to mark position of charger and drill holes.



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6. Wireless chargers – wall mounting



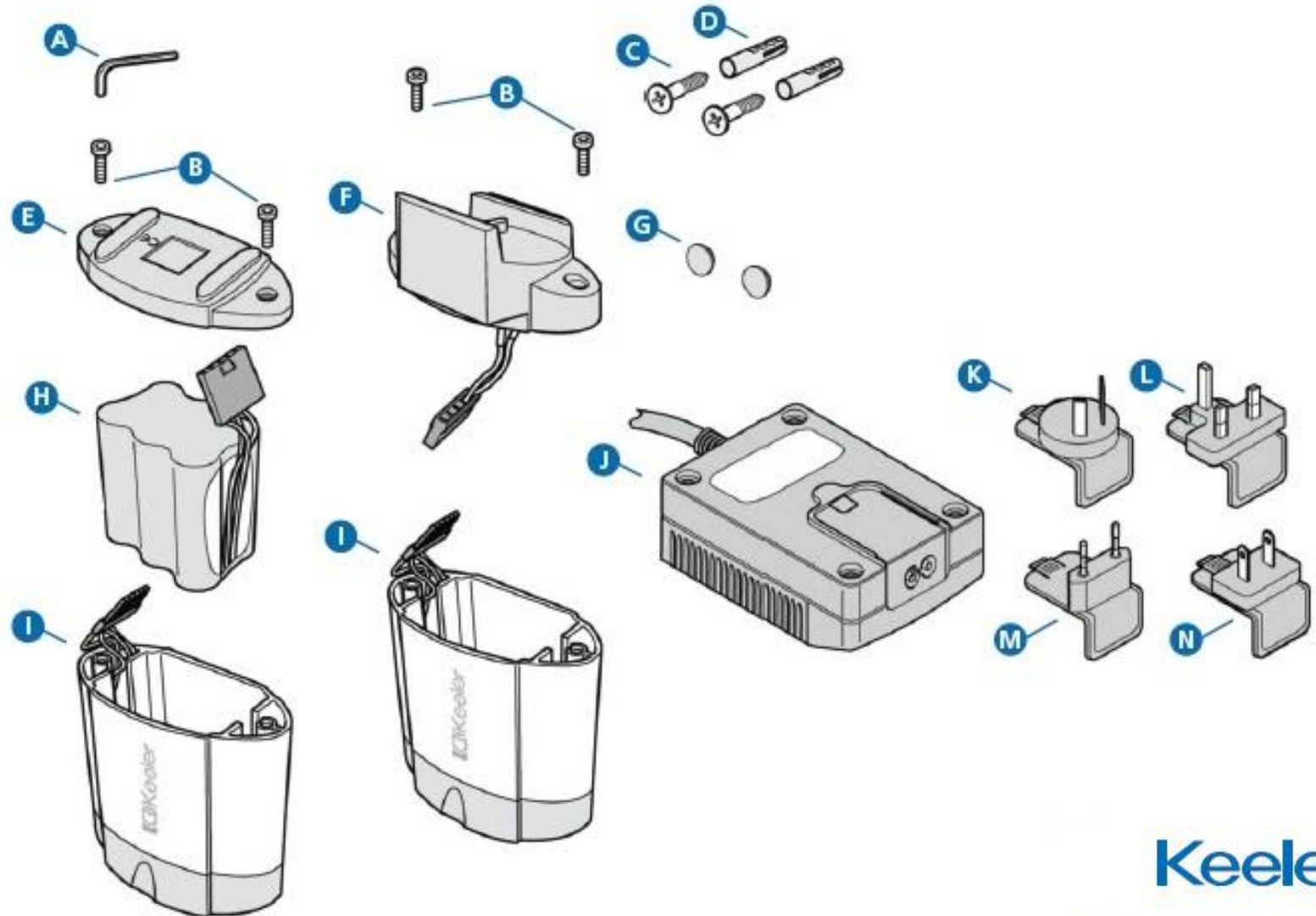
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7. SmartPack and WallPack

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



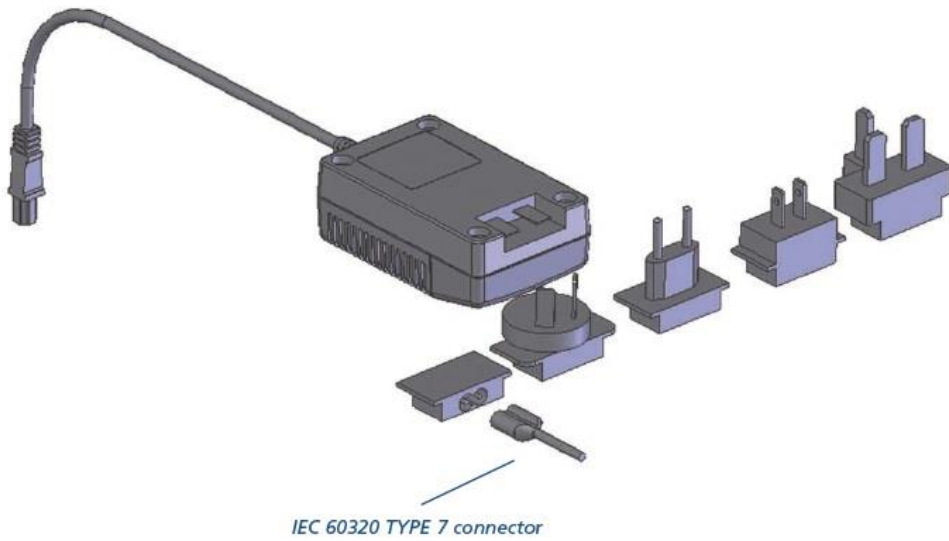
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7. SmartPack and WallPack

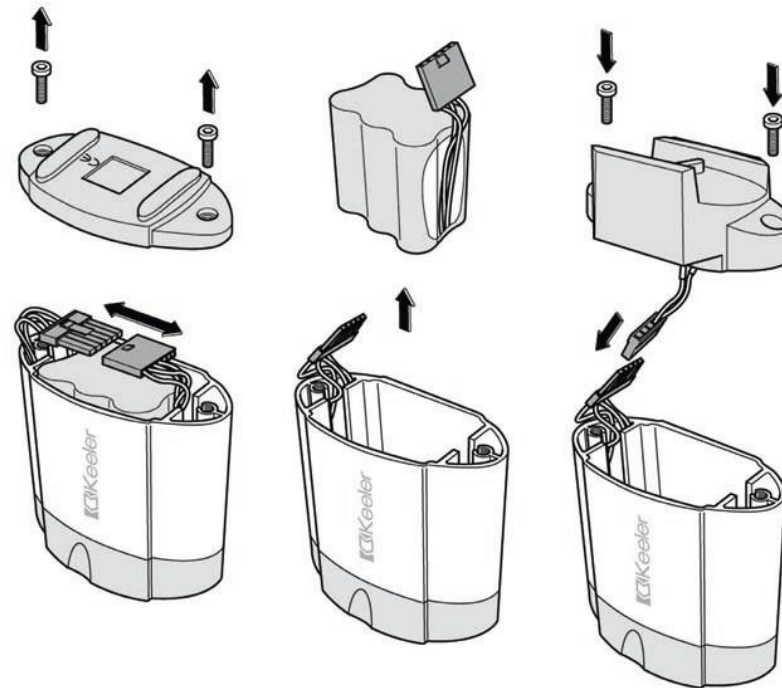
Set Plug

Assemble the power supply as per the instructions in section 6.



Power conversion

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



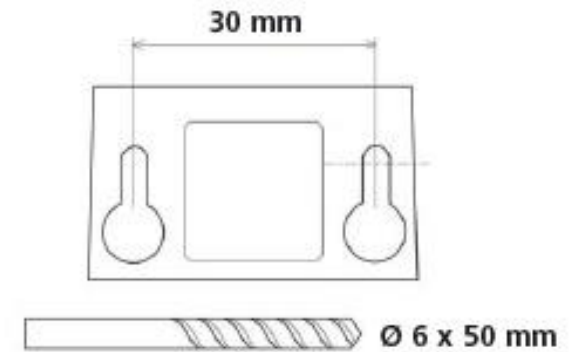
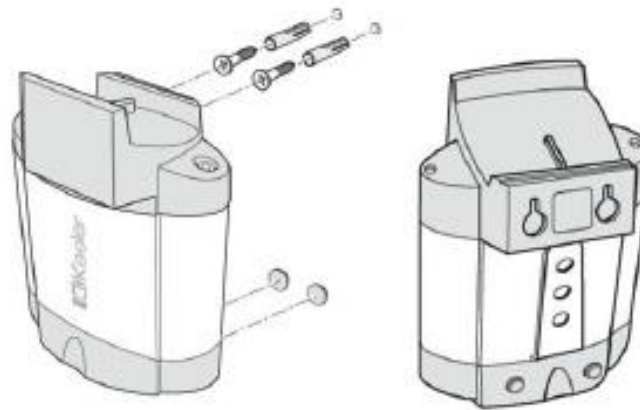
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7. SmartPack and WallPack

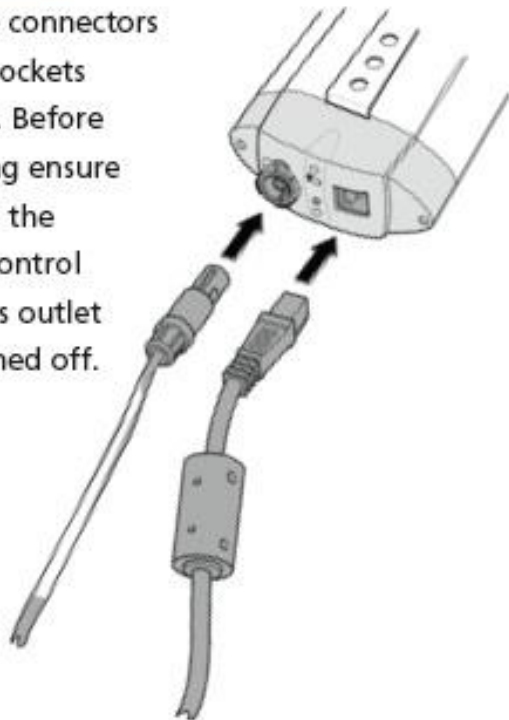
Fixing the Wall Mount

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



Connection

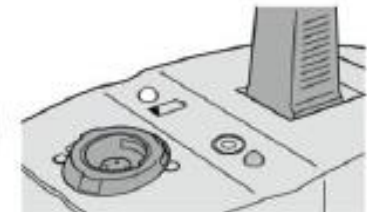
Insert the connectors into the sockets as shown. Before connecting ensure that both the dimmer control and mains outlet are switched off.



Charge Time

Charge the battery for 12 - 14 hours before initial use.

Note: The unit becomes warm when charging, this is normal.



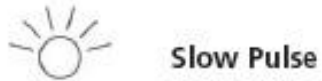
Recharging may take place while indirect is in use. Normal battery life is 1.5 to 5 hours depending on setting with a recharge time of two hours or on continuous trickle.

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7. SmartPack and WallPack

LED Displays



Slow Pulse



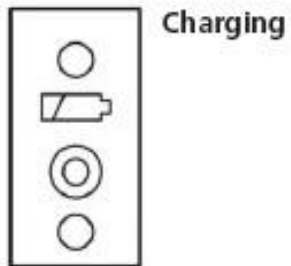
Fast Pulse



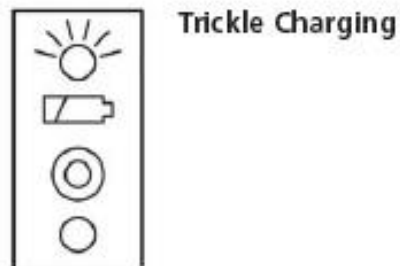
LED On



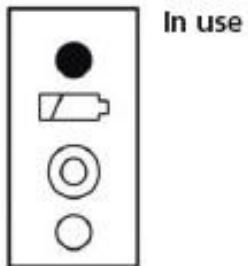
LED Off



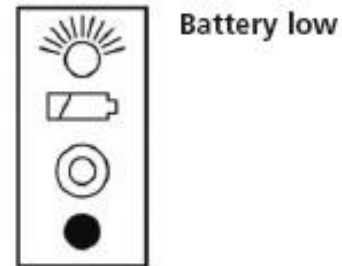
Charging



Trickle Charging



In use



Battery low

Power Supply Battery

Insert or remove the indirect plug or switch the indirect off/on.

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 on



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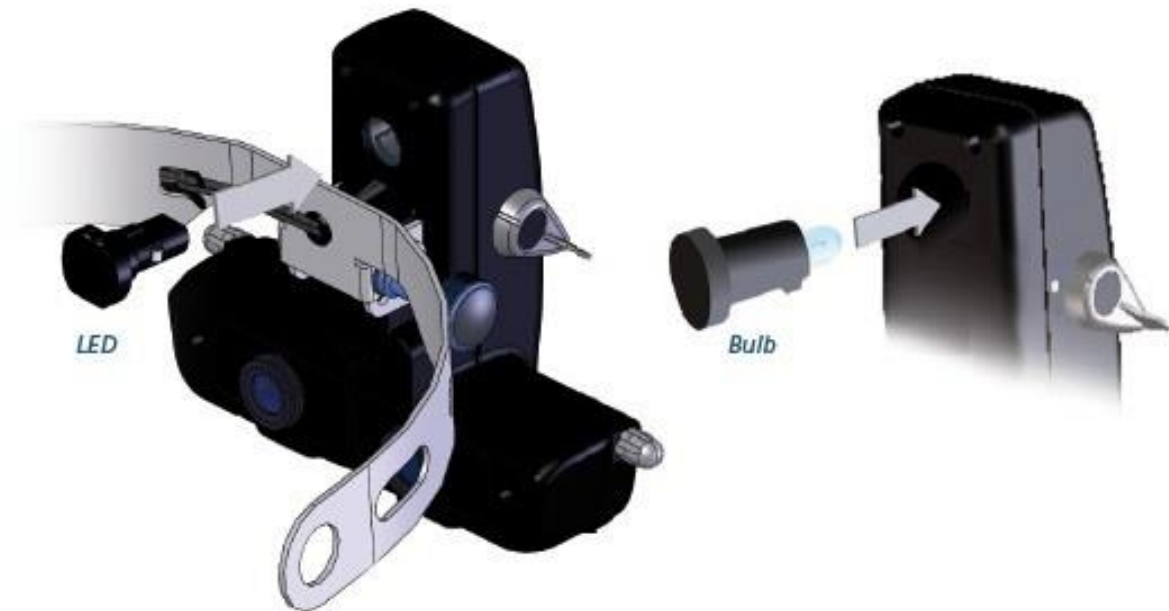
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8. LED / bulb replacement



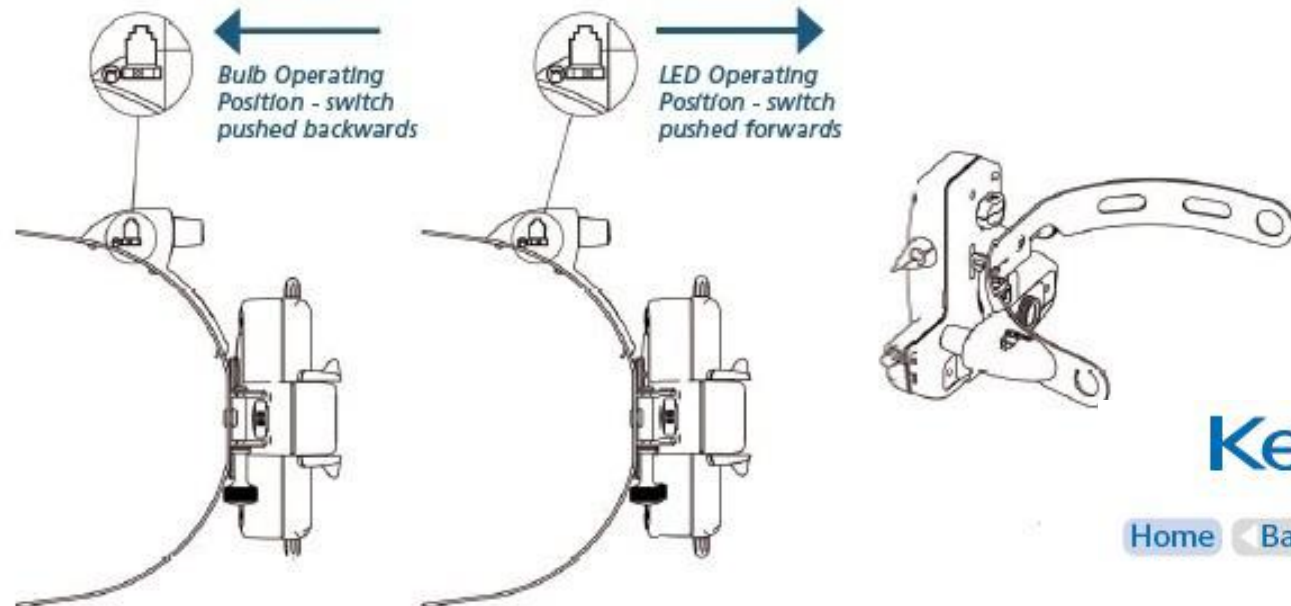
Caution: The LED/bulb may get very hot after prolonged use.

Allow LED/bulb to cool and disconnect the instrument from the electricity supply. Remove the LED/bulb from the back of the instrument and insert the new LED/bulb, ensuring the LED/bulb's 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 the diagram. To return to LED please move the switch forwards as shown in the diagram.



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9. Cleaning

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

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

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10. Specifications and electrical ratings

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

Transport, storage and operating conditions			
	Transport	Storage	Operation
Temperature range	-40°C to +70°C	-10°C to +55°C	+10°C to +35°C
Relative humidity	10% to 95%	10% to 95%	30% to 75%
Atmospheric pressure	500hPa to 1060hPa	700hPa to 1060hPa	700hPa to 1060hPa

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11. Annex I – EMC statement and guidelines

The Keeler Vantage Plus / Vantage Plus LED is a medical electrical instrument. The instrument requires special care concerning electromagnetic compatibility (EMC). This section describes the 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.

11. Annex I – EMC statement and guidelines

Guidance and manufacturer’s declaration – electromagnetic immunity

The Keeler 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	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 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 input/output lines	± 2 kV for power supply lines N/A	Mains power quality should be that of a typical commercial or hospital environment.
Surge. IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) N/A	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000-4-11	<5% U_T (> 95% dip in U_T) for 0.5 cycles 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 s	<5% U_T (> 95% dip in U_T) for 0.5 cycles 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Keeler 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	3 A/m	3 A/m	Power frequency magnetic fields should be at a level characteristic of a typical location in a typical commercial or hospital environment.

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



11. Annex I – EMC statement and guidelines

Guidance and manufacturer’s declaration – electromagnetic emissions

The Keeler 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
Charger only	RF emissions CISPR 11	Group 1	The Keeler Vantage Plus LED 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. The Keeler Vantage Plus LED 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.
	RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2		Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3		Complies	
Indirect Ophthalmoscope only	RF emissions CISPR 15	Complies	The Keeler Vantage Plus LED is not suitable for interconnection with other equipment



11. Annex I – EMC statement and guidelines

Guidance and manufacturer's declaration – electromagnetic immunity

The Keeler 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.

Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 V	<p>Portable and mobile RF communications equipment should be used no closer to any part of the Keeler Vantage Plus LED, including cables, than the recommended separation distances calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.2 \sqrt{p}$</p> <p>$d = 1.2 \sqrt{p}$ 80MHz to 800 MHz $d = 2.3 \sqrt{p}$ 800MHz to 2.5GHz</p> <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). 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 the following symbol:</p> 
Radiated RF IEC 61000-4-3	3 V/m 80MHz to 2.5GHz	3 V/m	

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 Vantage Plus LED 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 re-orientating or relocating the Keeler Vantage Plus LED.

² Over the frequency range 150kHz to 80 MHz, field strengths should be less than 3 V/m.

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11. Annex I – EMC statement and guidelines

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

The Keeler 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 LED can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Keeler 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 $d = 1.2\sqrt{p}$	80MHz to 800MHz $d = 1.2\sqrt{p}$	800MHz to 2.5GHz $d = 2.3\sqrt{p}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.2	1.2	2.3
10	3.7	3.7	7.4
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 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.

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12. Spare parts and accessories

The following accessories are typical of those supplied in the kits as indicated:

Vantage Plus Bulb version:

Wired (eg. 1204-P-3051)

Part Number	Description
EP39-53748	Eye Lens Plano (qty 2)
EP39-53799	Rubber Eye Cap (qty 2)
1202-P-7192	HiMag Assembly
2199-P-7136	Lens Cloth
1012-P-5241	Bulb
2415-P-7001	Instructions for Use CD

Wireless, with standard battery and charger (eg. 1204-P-3056)

As for 1204-P-3051 example, plus:	
Part Number	Description
EP29-32777	Power supply
EP39-22706	Wall pad
EP59-49013	Wall mount template
EP79-06498	Rawlbloc wall plug (qty 2)
SP90-84030	Screws (qty 2)
1012-P-5241	Bulb
1919-P-1013	Battery pack
1941-P-5334	Standard charger
2415-P-7000	Instructions for use CD

Wireless, with slimline battery and charger (eg. 1204-P-3067)

As for 1204-P-3051 example, plus:	
Part Number	Description
EP29-32777	Power supply
EP39-22706	Wall pad
EP59-49005	Wall mount template
EP79-06498	Rawlbloc wall plug (qty 3)
EP79-09496	Rubber foot (qty 3)
SP90-82000	Wood screw (qty 3)
1919-P-5338	Slimline battery (1 fitted, 1 bagged)
1945-P-5019	Slimline charger

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12. Spare parts and accessories

Vantage Plus LED:

Wired (eg. 1205-P-1010)

Part Number	Description
EP39-53748	Eye Lens Plano (qty 2)
EP39-53799	Rubber Eye Cap (qty 2)
1202-P-7192	HiMag Assembly
2199-P-7136	Lens Cloth
2415-P-7001	Instructions for Use CD

Wireless, with standard battery and charger (eg. 1205-P-1019)

As for 1205-P-1010 example, plus:	
Part Number	Description
EP29-32777	Power supply
EP39-22706	Wall pad
EP59-49013	Wall mount template
EP79-06498	Rawlbloc wall plug (qty 2)
SP90-84030	Screws (qty 2)
1919-P-1013	Battery pack (1 fitted, 1 bagged)
1941-P-5334	Standard charger

Wireless, with slimline battery and charger (eg. 1205-P-1020)

As for 1205-P-1010 example, plus:	
Part Number	Description
EP29-32777	Power supply
EP39-22706	Wall pad
EP59-49005	Wall mount template
EP79-06498	Rawlbloc wall plug (qty 3)
EP79-09496	Rubber foot (qty 3)
SP90-82000	Wood screw (qty 3)
1919-P-5338	Slimline battery (1 fitted, 1 bagged)
1945-P-5019	Slimline charger

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12. Spare parts and accessories

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.

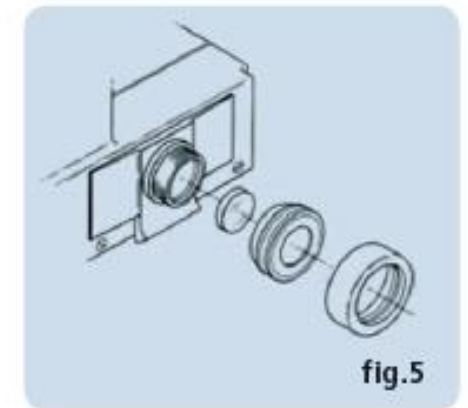


Rubber Eyecaps

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 available to view the ora serrata.

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13. Warranty



No user serviceable parts – all preventative maintenance and servicing must only be performed by authorised Keeler representatives

Your Keeler 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 LED for the Vantage Plus LED models is guaranteed for 5 years.

Batteries are covered by this warranty statement for 1 year only.



14. Contact and disposal information



Keeler Limited
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Berkshire SL4 4AA
Freephone: 0800 521251
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Fax: +44 (0)1753 827145

Keeler Instruments Inc.
3222 Phoenixville Pike
Building #50
PA 19355, USA
Toll Free: 1 800 523 5620
Tel: 610 353 4350
Fax: 610 353 7814

Disposal of old Electrical and Electronic Equipment

(Applicable in the European Union and other European Countries with separate Collection Systems)



This Symbol on the Product or on its Packaging and instructions indicates that it was put on the market place after August 2005 and 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)



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