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.

All Pupil II and All Pupil II LED are registered trademarks of Keeler Ltd 2012.

Copyright © Keeler Limited 2012.

Published in the UK 2012.
Thank you for purchasing the Keeler All Pupil II 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.
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

_purchase 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

规模最大 radiation

 yön up

💧 Keep dry

蝈 Fragile

TabIndex suitable for recycling
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

Keeler
4. Safety

**Caution**

- 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
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 17 minutes. The limit for the API II LED is 35 minutes.
5. Setting up and using the All Pupil II

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
5. Setting up and using the All Pupil II

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).
5. Setting up and using the All Pupil II

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, 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 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:

- Separate images
- Fused image
- Overlapping images

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.

Head Dimmer Switch (E)
Turn the illumination on by rotating the headband dimmer switch (E) in an anti clockwise direction.
5. Setting up and using the All Pupil II

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.
5. Setting up and using the All Pupil II

Filter Selector Bar (M)

The All Pupil II has two selectable filters built in to the head unit. Select the appropriate filter by sliding the Filter Selector Bar (M) either left or right from its mid position.

The Filter Selector Bar is marked with dots to indicate in which direction to slide it for each filter.

- **Red Free Filter**
  This filter reduces 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 not as critical as with the conventional beam.

The instrument provides protection from UV/IR.
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).
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.
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.
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.
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.
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.
6. Wireless chargers – wall mounting

Use template document provided to mark position of charger and drill holes.
6. Wireless chargers – wall mounting

1. Check

2.螺丝 x2

3. Caution

4. 钻孔

Keeler
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
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.
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.
7. SmartPack and WallPack

LED Displays

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Slow Pulse" /></td>
<td>Slow Pulse</td>
</tr>
<tr>
<td><img src="image" alt="Fast Pulse" /></td>
<td>Fast Pulse</td>
</tr>
<tr>
<td><img src="image" alt="LED On" /></td>
<td>LED On</td>
</tr>
<tr>
<td><img src="image" alt="LED Off" /></td>
<td>LED Off</td>
</tr>
<tr>
<td><img src="image" alt="Charging" /></td>
<td>Charging</td>
</tr>
<tr>
<td><img src="image" alt="Trickle Charging" /></td>
<td>Trickle Charging</td>
</tr>
<tr>
<td><img src="image" alt="In use" /></td>
<td>In use</td>
</tr>
<tr>
<td><img src="image" alt="Battery low" /></td>
<td>Battery low</td>
</tr>
</tbody>
</table>

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
8. LED/bulb replacement

Caution:

Bulbs / LED’s can reach high temperatures in use – allow to cool before handling

Use only genuine Keeler approved parts and accessories or device safety and performance may be compromised

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.

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

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

For further details see section 12.
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
10. Specifications and electrical ratings

All Pupil II

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

<table>
<thead>
<tr>
<th>Transport, storage and operating conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transport</strong></td>
</tr>
<tr>
<td>Temperature range</td>
</tr>
<tr>
<td>Relative humidity</td>
</tr>
</tbody>
</table>

API II LED

Voltage: 6V DC
Light output: Minimum 1500 LUX⁽¹⁾

Optical radiation complies with BS EN ISO 15004 part 1:1997

⁽¹⁾ Measured at 440mm from front window
11. Annex I – EMC statement and guidelines

The Keeler All Pupil II Indirect Ophthalmoscope 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.

Note: The API II LED is considered to be inherently EMC benign\(^{(1)}\), however when used as intended in conjunction with the All Pupil II Indirect Ophthalmoscope, the EMC requirements for the API II apply, and must be adhered to.

### 11. Annex I – EMC statement and guidelines

#### 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.

<table>
<thead>
<tr>
<th>Immunity test</th>
<th>IEC 60601 Test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD).</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
  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 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                    | 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

<table>
<thead>
<tr>
<th>Emissions test</th>
<th>Compliance</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charger only RF emissions</td>
<td>Group 1</td>
<td>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.</td>
</tr>
<tr>
<td>RF emissions CISPR 11</td>
<td>Class B</td>
<td>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.</td>
</tr>
<tr>
<td>Harmonic emissions IEC 61000-3-2</td>
<td>Class A</td>
<td></td>
</tr>
<tr>
<td>Voltage fluctuations / flicker emissions IEC 61000-3-3</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>Indirect Ophthalmoscope only</td>
<td>RF emissions CISPR 15</td>
<td>Complies</td>
</tr>
<tr>
<td></td>
<td>Complies</td>
<td>The Keeler All Pupil II is not suitable for interconnection with other equipment.</td>
</tr>
</tbody>
</table>
## 11. Annex I – EMC statement and guidelines

### 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 user should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>Immunity test</th>
<th>IEC 60601 Test level</th>
<th>Compliance level</th>
<th>Electromagnetic environment - guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducted RF</td>
<td>IEC 61000-4-6</td>
<td>3 Vrms 150 kHz to 80 MHz</td>
<td>3 V</td>
</tr>
<tr>
<td>Radiated RF</td>
<td>IEC 61000-4-3</td>
<td>3 V/m 80MHz to 2.5GHz</td>
<td>3 V/m</td>
</tr>
</tbody>
</table>

- **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**

\[ d = 1.2 \sqrt{p} \]

- For 80MHz to 800 MHz:
  \[ d = 1.2 \sqrt{p} \text{ 80MHz to 800 MHz} \]
- For 800MHz to 2.5GHz:
  \[ d = 2.3 \sqrt{p} \text{ 800MHz to 2.5GHz} \]

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 the following symbol: ![Warning symbol]

---

**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 3 V/m.
11. Annex I – EMC statement and guidelines

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.

<table>
<thead>
<tr>
<th>Rated maximum output power of transmitter W</th>
<th>Separation distance according to frequency of transmitter m</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 kHz to 80MHz d = 1.2√p</td>
<td>80MHz to 800MHz d = 1.2√p</td>
</tr>
<tr>
<td>800MHz to 2.5GHz d = 2.3√p</td>
<td></td>
</tr>
<tr>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>0.1</td>
<td>0.37</td>
</tr>
<tr>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>10</td>
<td>3.7</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
</tbody>
</table>

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.
12. Spare parts and accessories

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

API Bulb version, wired (e.g. 1204-P-3038)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP09-00755</td>
<td>API II case</td>
</tr>
<tr>
<td>EP29-32777</td>
<td>Power supply</td>
</tr>
<tr>
<td>EP39-53748</td>
<td>Eye Lens Plano (qty 2)</td>
</tr>
<tr>
<td>EP39-53799</td>
<td>Rubber Eye Cap (qty 2)</td>
</tr>
<tr>
<td>EP79-70059</td>
<td>Soft case</td>
</tr>
<tr>
<td>SP90-84030</td>
<td>Screws (qty 2)</td>
</tr>
<tr>
<td>1201-P-6067</td>
<td>Large depressor</td>
</tr>
<tr>
<td>1201-P-6075</td>
<td>Small depressor</td>
</tr>
<tr>
<td>1201-P-7000</td>
<td>Chart pad (pack of 50)</td>
</tr>
<tr>
<td>1202-P-7117</td>
<td>API II teaching mirror</td>
</tr>
<tr>
<td>1299-P-7032</td>
<td>Coloured pencils (pack of 12)</td>
</tr>
<tr>
<td>1945-P-1001</td>
<td>SmartPack</td>
</tr>
<tr>
<td>2105-K-1159</td>
<td>20D lens</td>
</tr>
<tr>
<td>2199-P-7136</td>
<td>Lens Cloth</td>
</tr>
<tr>
<td>2415-P-7000</td>
<td>Instructions for Use CD</td>
</tr>
<tr>
<td>3412-P-5100</td>
<td>API II accessory case</td>
</tr>
</tbody>
</table>

Wireless, with standard battery and charger (e.g. 1204-P-3041)

As for 1204-P-3038 example, without 1945-P-1001, but plus:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP39-22706</td>
<td>Wall pad</td>
</tr>
<tr>
<td>EP59-49013</td>
<td>Wall mount template</td>
</tr>
<tr>
<td>EP79-06498</td>
<td>Rawlbloc wall plug (qty 2)</td>
</tr>
<tr>
<td>1012-P-5110</td>
<td>API II halogen bulb</td>
</tr>
<tr>
<td>1941-P-5334</td>
<td>Standard charger</td>
</tr>
</tbody>
</table>

The following items are available in addition to the accessories supplied in the aforementioned kits:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1012-P-7003</td>
<td>API II bulbs (qty 2)</td>
</tr>
<tr>
<td>1205-P-5014</td>
<td>API II LED</td>
</tr>
<tr>
<td>1919-P-1013</td>
<td>Standard battery</td>
</tr>
<tr>
<td>1919-P-5338</td>
<td>Slimline battery</td>
</tr>
<tr>
<td>1945-P-5019</td>
<td>Slimline charger</td>
</tr>
<tr>
<td>3412-P-7000</td>
<td>API II carrying case</td>
</tr>
</tbody>
</table>

Part numbers for ExpressiOn Clip on Covers are on page 37.
12. Spare parts and accessories

API II LED

The API II LED is a replacement light source for the All Pupil II Indirect Ophthalmoscope.

Follow the guidance in section 8 for fitting.
12. Spare parts and accessories

Teaching mirror

(A) Remove the screws from the panel beneath the front window with the screwdriver supplied.

(B) Fit the mounting bar with the pin pointing to the right and secure with screws removed in step (A). 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:

Remove the screws as in step (A). Position the mounting bar and replace the screw on left side only. Fit the teaching mirror as in step (B).

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.

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.
12. Spare parts and accessories

**Eyepiece Caps**
Eyepiece 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 (Part No. EP39-53799). For further details please refer to the accessory lists on page 34.

**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. For further details please refer to the accessory lists on page 34.

**ExpressiOn Clip on Covers**
A range of different colour front covers are available to fit over your Indirect. To fit the cover, simply push on until the small clips on the side and underneath engage with the slots in the main moulding as shown in diagram. Please ensure the cover is fitted correctly (as per instructions) before use. See image to right.

These are available in the following colours:

⚠️ Do not use ExpressiOn Clip on Covers during surgical procedures
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 API II LED is guaranteed for 5 years.
Batteries are covered by this warranty statement for 1 year only.
14. Contact and disposal information

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Building #50
Malvern, PA 19355
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Tel: 610 353 4350
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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).