

**SAVE THESE INSTRUCTIONS FOR FUTURE USE**

**IMPORTANT SAFETY INFORMATION**

**⚠ WARNING: Important! Read and understand these instructions before using the Graham-Field 1227-2 Ophthalmoscope. If you DO NOT understand ANY part of these warnings, cautions or instructions, contact a healthcare professional for direction in the use of this product. If the Ophthalmoscope is NOT properly used, personal injury and damage to the Ophthalmoscope could result.**

**⚠ WARNING: To prevent burns and damage to the device, DO NOT touch the lens directly.**

**⚠ WARNING: If components are damaged or missing, contact your GF Health Products, Inc. ("Graham-Field") authorized distributor IMMEDIATELY. DO NOT use substitute parts. Unauthorized modification or the use of non-Graham-Field replacement parts could VOID the warranty and result in serious personal injury. Use this device ONLY with replacement parts recommended by GF Health Products, Inc.**

**⚠ WARNING: Keep this device OUT of the hands of children.**

**⚠ WARNING: This device has no serviceable components; DO NOT open it for any other reason than replacing bulbs and batteries.**

**⚠ WARNING: GF Health Products, Inc. assumes no responsibility for any damage or injury caused by improper application or use of this product.**

**▲ NOTICE: Protect this device from water, moisture, impact, dropping, direct sunlight, heat, and fire.**

**INTENDED USE AND CONTRAINDICATIONS**

The Ophthalmoscope, an internally powered device, is intended to allow inspection of the interior structure of the eye, including the dioptic media, retina, and macula lutea, by a licensed medical professional.

**⚠ WARNING: DO NOT use this device where it could be exposed to flammable gas.**

**1227-2 OPHTHALMOSCOPE COMPONENTS**



Graham-Field 1227-2 Ophthalmoscope

The Graham-Field 1227-2 Ophthalmoscope, shown above, comes with Storage Case (not shown), Handle, and Head (shown assembled above). Batteries (two AA alkaline required) are not included.

**1227-2 OPHTHALMOSCOPE DESCRIPTION**



The Graham-Field 1227-2 Ophthalmoscope is shown above with features labeled.

**SYMBOLS**

	Manufacturer
	Symbol for the marking of electrical and electronics devices according to Directive 2002/96/EC. Dispose of this device, batteries, and packaging in accordance with local laws and regulations
	Type B applied part
	Attention, consult accompanying documents

**ASSEMBLY**

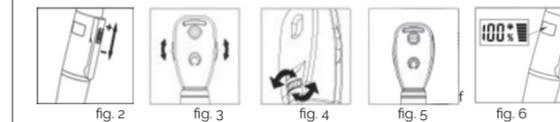


fig. 1

1. Install the head on the handle and screw it on (fig. 1).
2. If batteries have not been installed, see **Changing the Batteries**, and follow steps 1, 3 and 4.

**OPERATION**

**⚠ WARNING: To avoid burns and damage to device, use the Ophthalmoscope *intermittently*.**



1. Turn the Ophthalmoscope ON by pushing switch upward (fig. 2).
2. Use the switch to adjust the light level (fig. 2): push switch up for brighter, down for dimmer, and all the way down to turn the device OFF.



fig. 7



fig. 8

3. Scroll the diopter wheel (fig. 3) to select a suitable diopter (fig. 7) for clear observation .
4. Scroll the diaphragm wheel (fig. 4) to desired aperture (fig. 8).
5. Aim the light at desired area of observation (fig. 5).
6. The LCD (fig. 6) shows working position, battery capacity, and lighting level.
7. Turn the Ophthalmoscope OFF by pushing the switch completely downward (fig. 3).

**Info:** The Ophthalmoscope will automatically power off after 3 minutes without use.

**MAINTENANCE**



fig. 9 fig. 10

**Changing the Bulb**

**⚠ WARNING: The moscope bulb retains heat! To avoid injury, wait at least five minutes after use before changing the bulb.**

1. After Ophthalmoscope has been powered off for at least five minutes, unscrew and remove Ophthalmoscope head from handle.
2. Unscrew and remove the bulb tube.
3. Pull the old bulb downward to remove; replace with new 3.0Vdc 80mA LED bulb.
4. Screw Ophthalmoscope head onto handle.

1227-2-INS-LAB-RevB25

**Changing the Batteries**

**⚠ WARNING: Dispose of batteries in accordance with local laws and regulations.**

**▲ NOTICE: ALWAYS replace both batteries at the same time. Use ONLY AA alkaline batteries in this device.**

**▲ NOTICE: ALWAYS remove batteries when device will NOT be used for an extended period of time.**

1. Unscrew and remove bottom cover from handle.
2. Remove the old batteries.
3. Replace with two new AA alkaline batteries. Ensure both batteries' positive ends point to the head (fig.11).
4. Replace the bottom cover.

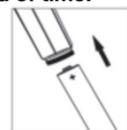


fig. 11

**Cleaning and Disinfection**

**▲ NOTICE: DO NOT use corrosive or polishing cleansers on the Ophthalmoscope.**

**▲ NOTICE: DO NOT soak or autoclave the Ophthalmoscope, or allow water or other liquids to drip into it.**

Wipe surface area **only** of Ophthalmoscope with a clean cloth dampened with a 75% isopropyl alcohol solution.

**SPECIFICATIONS**

<b>Mode of operation</b>	Intermittent	
<b>Technology</b>	SMT LED	
<b>Illumination</b>	Direct illumination	
<b>Bulb Electrical Parameter</b>	3.0Vdc 80mA LED	
<b>Luminance</b>	14 Lumen	
<b>Color Temperature</b>	3500°K ±5%	
<b>Battery</b>	2 x AA alkaline batteries (not included)	
<b>Operation Environment</b>	Temperature	50°F ~ 95°F (10°C ~ 35°C)
	Humidity	30% - 75%
	Air pressure	700 hPa ~ 1060 hPa
<b>Storage and Transport Environment</b>	Temperature	-4°F ~ 158°F (-20°C ~ 70°C)
	Humidity	10% ~ 90% (without condensation)
	Air pressure	500 hPa ~ 1060 hPa
<b>Disposal</b>	Dispose of this device and battery in accordance with local laws and regulations	

**WARRANTY**

**SCOPE OF WARRANTY**

GF Health Products, Inc. ("GF") warrants to the Original Purchaser only that it will replace or repair components, at GF's sole discretion, that are defective in material or workmanship under normal use and service. All warranties are conditioned upon the proper use of the products strictly in accordance with good commercial practice and applicable GF instructions and manuals, including proper use and maintenance. To the extent that a third party warrants a component, GF conveys all of its rights under that warranty to the Original Purchaser, to the extent permitted. Original Purchaser is one who purchases this product new and unused from GF or a Certified GF Dealer/Distributor.

This limited warranty shall only apply to defects that are reported in accordance with the provisions set forth in this warranty document, within the applicable warranty period and which, upon examination by GF or its authorized representative, prove to be a warranty item. (See Obtaining Warranty Service below) This limited warranty is not transferable. The warranted components and time periods are set forth below:

Ophthalmoscope: 1 (one) year

The applicable warranty period shall commence from date of shipment to the Original Purchaser, unless there is an expiration date on the component in which case the warranty shall expire on the earlier of warranty period or the expiration date.

**OBTAINING WARRANTY SERVICE**

Contact the Dealer/Distributor from whom the product was purchased. If there is not a Dealer/Distributor, you must contact GF directly by calling (770) 368-4700 or by e-mailing a request to [cs@grahamfield.com](mailto:cs@grahamfield.com). The Customer Service Representative will provide specific directions. Failure to abide by the specific directions will result in denial of the warranty claim. The warranty does not cover and GF shall not be liable for the following:

- 1) Defects, damage, or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, tampering or failure to seek and obtain repair or replacement in a timely manner;
- 2) Products which are not installed, used, or properly cleaned and maintained as required in the official manual for the applicable product;
- 3) Products considered to be of a non-durable nature including, but not limited to: filters, fuses, gaskets, lubricants, and charts;
- 4) Accessories or parts not provided by GF;
- 5) Matching of color, grain or texture except to commercially acceptable standards;
- 6) Changes in color caused by natural or artificial light;
- 7) Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing, in advance, by GF;
- 8) Any labor or shipping charges incurred in the replacement part installation or repair;
- 9) Costs and expenses of regular maintenance and cleaning; and
- 10) Representations and warranties made by any person or entity other than GF.

**ENTIRE WARRANTY, EXCLUSIVE REMEDY AND CONSEQUENTIAL DAMAGES DISCLAIMER**

TO THE GREATEST EXTENT PERMITTED BY LAW, THIS WARRANTY IS GF'S ONLY WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. EXCEPT IN CASES WHERE IMPLIED WARRANTIES MAY NOT BE VALIDLY WAIVED, GF MAKES NO IMPLIED WARRANTIES OF ANY KIND INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IF ANY MODEL OR SAMPLE WAS SHOWN TO THE CUSTOMER, SUCH MODEL OR SAMPLE WAS USED MERELY TO ILLUSTRATE THE GENERAL TYPE AND QUALITY OF THE PRODUCT AND NOT TO REPRESENT THAT THE PRODUCT WOULD NECESSARILY CONFORM TO THE MODEL OR SAMPLE IN ALL RESPECTS. THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PARTS. GF SHALL NOT BE LIABLE FOR AND HEREBY DISCLAIMS ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO: DAMAGES FOR LOSS OF PROFITS OR INCOME, LOSS OF USE, DOWNTIME, COVER, OR EMPLOYEE OR INDEPENDENT CONTRACTOR WAGES, PAYMENTS AND BENEFITS. CERTAIN STATES AND COUNTRIES MAY CONFER ADDITIONAL RIGHTS REGARDING WARRANTIES AND IN THOSE INSTANCES, GF'S LIABILITY AND THE LIABILITY OF GF'S SUPPLIERS, SHALL BE LIMITED TO THE FULLEST EXTENT PERMITTED BY LAW.

The warranties contained herein, together with GF's current Terms and Conditions, contain all the representations and warranties with respect to the subject matter of this document, and supersede all prior negotiations, agreements and understandings with respect thereto. The recipient of this document hereby acknowledges and represents that it has not relied on any representation, assertion, guarantee, warranty, collateral contract or other assurance, except those set out in this document.

For additional information on this product or this warranty, please contact a GF Customer Service Representative.

**NOTES:**

- 1) Additional terms and conditions may apply. See GF's General Terms and Conditions on its website: [www.grahamfield.com](http://www.grahamfield.com).
- 2) Freight claims must be noted on the appropriate shipping documents and must be made with immediacy. International, federal and state regulations govern specific requirements for freight claims. Failure to abide by those regulations may result in a denial of the freight claim. GF will assist you in filing the freight claim.
- 3) Claims for any short shipment must be made within three (3) days of the invoice date.