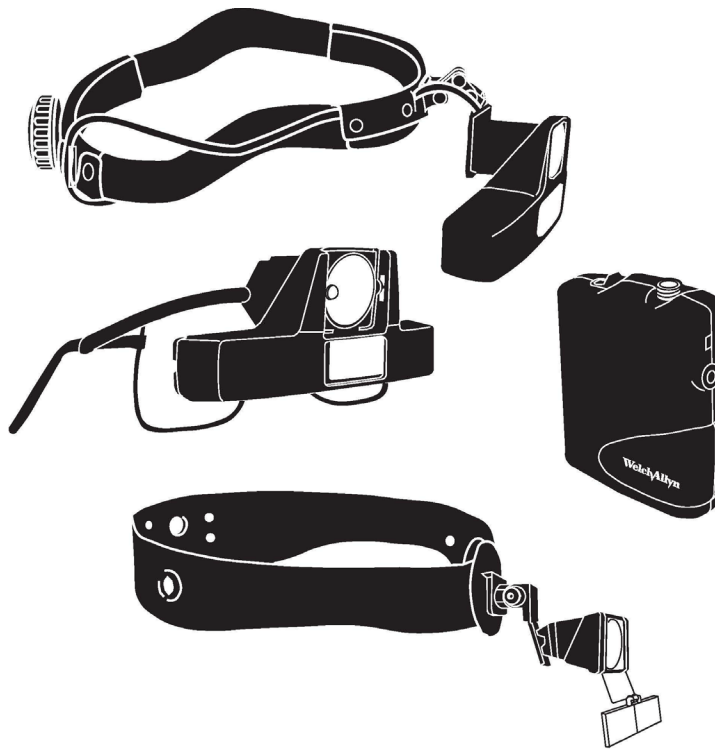


WelchAllyn® LumiView®

Portable Binocular Microscope

Microscope binoculaire portatif

Microscopio binocular portátil



Operating Instructions.....4

Instructions de fonctionnement.....20

Instrucciones de operación.....34

Content

| | |
|--|-----------|
| Symbols | 3 |
| Standards Compliance | 3 |
| Operating Instructions | 4 |
| Instrument Function | 4 |
| Flat Surface Magnifier | 4 |
| Description of Controls | 5 |
| Adjustments | 6 |
| Connecting to the Power Source | 9 |
| Accessories | 10 |
| Lamp Replacement | 10 |
| Cleaning | 11 |
| Maintenance | 11 |
| Specifications | 11 |
| Approvals | 11 |
| Product and Accessory Ordering Information | 12 |
| Power Sources (Portable and Direct Plug-In) | 13 |
| Service and Warranty Information | 16 |
| Troubleshooting Guide | 17 |
| | |
| Symboles | 19 |
| Conformité aux normes | 19 |
| Instructions de fonctionnement | 20 |
| Fonction de l'instrument | 20 |
| Loupe à surface plate | 20 |
| Description des commandes | 21 |
| Réglages | 22 |
| Branchement à la source d'alimentation | 25 |
| Accessoires | 26 |
| Nettoyage | 27 |
| Entretien | 27 |
| Caractéristiques techniques | 27 |
| Homologations | 27 |
| Commande des produits et accessoires | 28 |
| Sources d'alimentation (portative et directe enfichable) | 29 |
| Service et garantie | 32 |

| | |
|--|-----------|
| Símbolos | 33 |
| Cumplimiento de normas | 33 |
| Instrucciones de operación | 34 |
| Función del instrumento | 34 |
| Lupa de superficie plana | 34 |
| Descripción de los controles | 35 |
| Ajustes | 36 |
| Conexión a la fuente de energía | 39 |
| Limpieza | 41 |
| Mantenimiento | 41 |
| Especificaciones | 41 |
| Aprobaciones | 41 |
| Información de pedido de productos y accesorios | 42 |
| Fuentes de energía (Portátil y de enchufado directo) | 43 |
| Servicio y garantía | 46 |

Thank you for purchasing the Welch Allyn **LumiView®** Portable Binocular Microscope or Flat Surface Magnifier. To ensure accurate and reliable performance of your new instrument, please follow the operating and maintenance instructions found in this manual.

IMPORTANT: The material outlined in this manual should be reviewed and understood prior to operation of the equipment.

Nous vous remercions d'avoir fait l'acquisition du microscope binoculaire portatif ou la loupe à surface plate **LumiView®** de Welch Allyn. Suivez les directives contenues dans ce manuel pour assurer le fonctionnement précis et fiable de votre nouvel instrument pendant de nombreuses années.

IMPORTANT : Avant d'utiliser l'équipement, bien lire les instructions données dans ce manuel.

Agradecemos su compra del Microscopio binocular portátil o Lupa de superficie plana **LumiView®** de Welch Allyn. Para asegurar un rendimiento preciso y confiable de su nuevo instrumento, siga las instrucciones de operación y mantenimiento que se encuentran en este manual.

IMPORTANTE: El material descrito en este manual debe ser revisado y entendido antes de operar el equipo.

Symbols



CAUTION: Consult accompanying documents.



Internally Powered



Recycle

NOTE: Provides supplemental information to the text and indicates a potentially hazardous situation, which, if not avoided, may result in property damage. Additionally, it highlights important information on the use of this equipment.

Standards Compliance



Listed Product ETL Laboratories

Listed Standards UL 60601-1, CAN/CSA C22.2
No. 601.1-M90, IEC 601-1

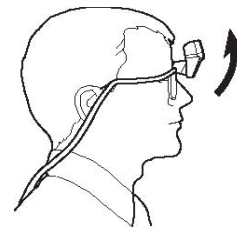
Instrument Function

This device offers binocular (both eyes) viewing, providing a three-dimensional stereoscopic view. This stereoscopic view is then magnified and illuminated to provide excellent tissue rendition.

Portable Binocular Microscope

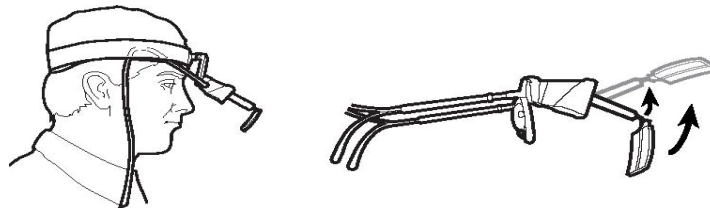
When the binoculars are engaged, the visual pathways are displaced medially to allow for binocular vision in narrow cavities. Two diopters (1.5x) magnification improves vision.

When the binoculars are rotated upwards, the scope becomes a convenient basic headlight.



Flat Surface Magnifier

- The three diopter (2.5x) flat surface magnifier is available in either the headband model or the spectacle model. The magnifier can be flipped up for convenient headlight use.

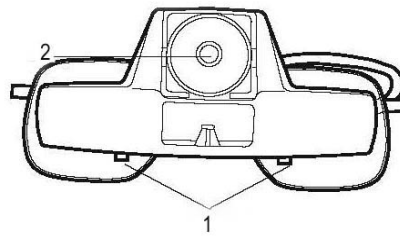


CAUTION: This device is not to be used in the presence of flammable anesthetics.

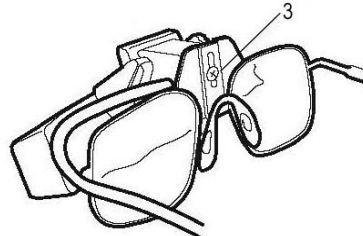
CAUTION: DO NOT look directly into the light. This device contains a High Intensity Lamp. It is not to be used for illumination or examination of any portion of the eye, Posterior or Anterior.

Description of Controls

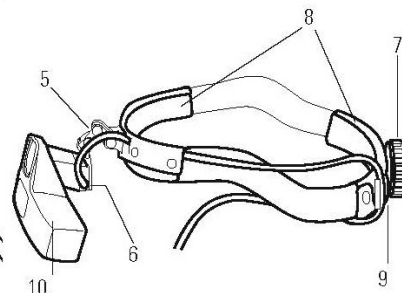
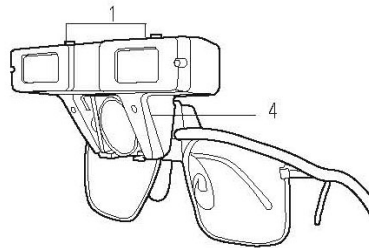
Front View



Back View

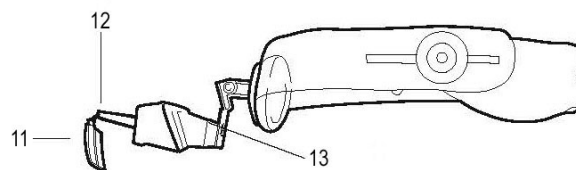


1. Interpupillary distance (IPD) controls
2. Lamp
3. Instrument vertical height adjustment



4. Binocular flip-up axis
5. Pivot mechanism
6. Height adjustment screw
7. Headband circumference adjustment knob
8. Comfort pads
9. Cable clips
10. Optical assembly

Flat Surface Magnifier



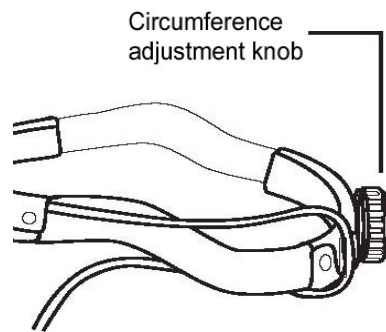
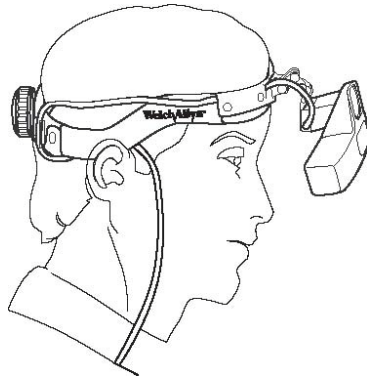
11. Magnifier lens
12. Lens holder
13. Vertical adjustment screw

Adjustments

Ratchet Style Headband

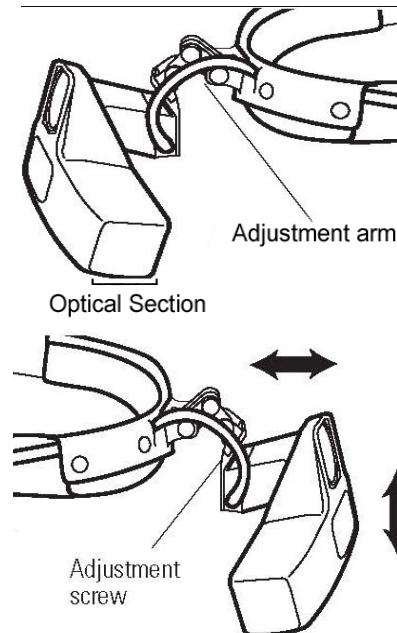
Instructions

- Position the main body of the headband on the head so that the band fits comfortably on the forehead and low on the back of the head. Use the circumference adjustment knob to adjust the size.



Optics Assembly

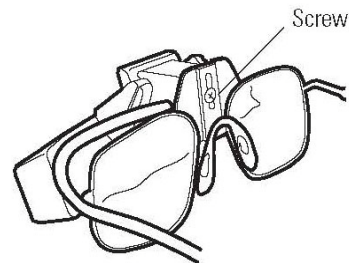
- The optics assembly can be adjusted to the desired position by manipulating the links in the pivot mechanism. The Optics Assembly should be positioned as close to the eyes as possible so that the eyes can gaze directly through the Optics Assembly. (Set optics per instructions provided with your LumiView.)
- With the lamp illuminated, check the adjustment by confirming that the light beam is centered in the visual field. If the light is high or low, refer to the detailed adjustment instructions provided with your LumiView®.



Spectacle Model

Optical Section Vertical Adjustment

- Loosen screw that attaches optical section spectacles.
- Reposition optical section to insure proper alignment with user's eyes.
- Tighten screw to maintain optical section location.



Adjusting for User Refractive Error (Spectacle Models Only)

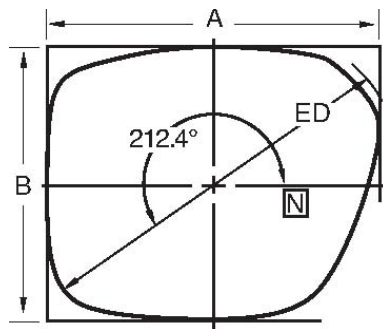
The optimal working distance from the object is 15" (38.1cm) - 17" (43.2cm). If this model is used without corrective lenses and user is myopic or hyperopic, then the user will need to work closer or farther from object, depending on refractive error.

To compensate for this, the spectacle models can be fitted with corrective lenses by an eyecare practitioner of your choice. Please bring the following information to assist your eyecare practitioner in fitting your prescription lenses.

Lens Template – Spectacle Model

Front Sizes

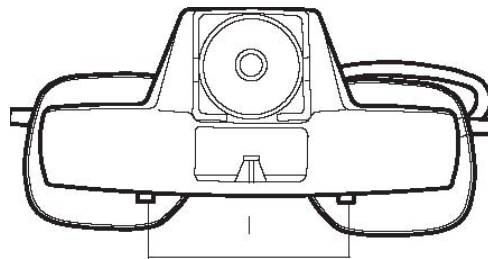
| Eye | A | B | ED | D.B.L |
|-----|----|----|------|-------|
| 51 | 51 | 43 | 57.4 | 18 |



Setting the Interpupillary Distance

The Interpupillary Distance (IPD) Controls move the oculars and are located on the bottom of the optical section. These oculars move independently of one another.

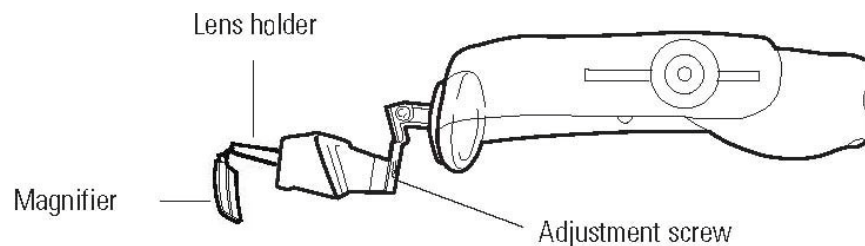
- To set IPD properly, observe an object at approximately 15 inches (38cm).
- Close the left eye and adjust the IPD control under the right eye until the viewed image is centered.
- Now close the right eye, keeping the left eye open, and adjust the IPD control for the left eye until that image is centered.
- Open both eyes and the object should be clear and centered.



Interpupillary Distance Controls

Flat Surface Magnifier Model

- Loosen screw that attaches the lamp section to the adjustment arm.
- Reposition the lamp section up or down to desired location and tighten screw.
- Place instrument on head. Adjust the flat surface magnifier by moving the lens holder up or down and the magnifier in or out.



Connecting to the Power Source

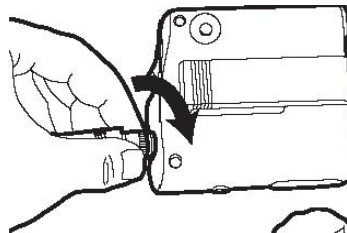
NOTE: The instrument power cord must be plugged into either a Welch Allyn Portable Power Source No. 75260 or a Welch Allyn Direct Plug-In Power Source No. 75210.



CAUTION: The lamp housing becomes hot when the lamp is on for more than 5 minutes and can cause a burn if it contacts the skin. Allow at least 10 minutes for cooling between the uses of the illuminator.

Portable Power Source

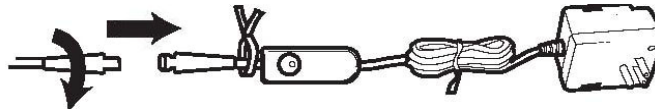
- Plug instrument power cord into the power cord connector port on top of the power source.
- Push in until firmly in place.
- Gently screw the external connector sleeve clockwise to secure (optional).
- Attach the Portable Power Source by using the belt clip.
- The instrument is now ready for use.



Direct Plug-in Power Source

- Plug Power cord from the Binocular microscope into the Direct Plug-in Power cord.
- Push in until firmly in place.
- Gently screw the external connector sleeve clockwise to secure (optional).
- Plug direct power source into a nearby receptacle.
- The instrument is now ready for use.

To instrument



Accessories

Pneumatic Speculum Holder

- A pneumatic speculum holder with a 4x's magnification lens can be used to aid in examination of the ear.



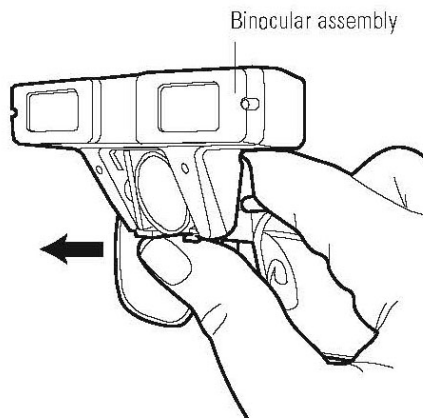
Lamp Replacement



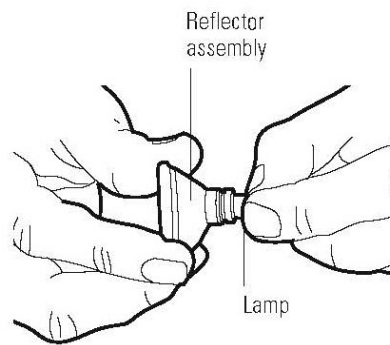
CAUTION: Lamps may become very HOT. Be sure to allow lamps to cool before changing.

- To change the lamp, flip the binocular assembly into its up position.
- Remove the reflector assembly by placing the thumb on the notch located on the bottom of the reflector housing and pushing the reflector assembly. (Step 1)
- Remove lamp and insert a new Welch Allyn lamp No. 08500 into the back of the reflector. (Step 2)
- Replace reflector housing into instrument and push until it snaps into place.

NOTE: Reflector assembly air vents should be positioned top and bottom.



Step 1



Step 2

Cleaning

All glass surfaces, portable binocular microscope lenses, ocular or eyepiece covers and lamp reflective covers can be cleaned with a soft cloth moistened with alcohol.

The exterior surfaces of the portable binocular microscope and power sources can be wiped clean with a soft cloth moistened with alcohol.

NOTE: Avoid using harsh cleansing fluids or excessively moistened cloths on any portion of the instrument.

To clean the Reusable Specula:

1. Rinse the Reusable Specula with warm tap water for one minute.
2. Soak the Reusable Specula in 70% isopropyl alcohol for 20 minutes.
3. Rinse Reusable Specula with tap water and air dry.

Maintenance

Lamp replacement and cleaning may be performed by the user on an as needed basis. Additional servicing should be performed by returning the instrument to an authorized Welch Allyn Technical Service Department or distributor. See "Service and Warranty Information" section.

Specifications

| | |
|----------------------------------|-------------------------------|
| Interpupillary Distance | 49mm to 74mm |
| Light Source | 3.60V, Halogen |
| Headband Adjustment Range | Small, Medium and Large |
| Weight (No. 20500S) | 80g |
| Transport and Storage | -20°C to 40°C, 95% RH maximum |

Approvals

UL 60601-1, CAN/CSA NO. 601.1-M90
IEC 601-1

Product and Accessory Ordering Information

| <i>Product No.</i> | <i>Instrument Description</i> |
|--------------------|---|
| No. 20500S | Spectacle LumiView REF 20501 with Portable Power Source REF 75200 and Charger REF 74810 |
| No. 20510S | Spectacle LumiView REF 20501 with Direct Plug-In Power Source REF 75210 |
| No. 20500H | Headband LumiView REF 20501 with Portable Power Source REF 75200 and Charger REF 74810 |
| No. 20510H | Headband LumiView REF 20501 with Direct Plug-In Power Source REF 75210 |
| No. 20530S | Spectacle LumiView REF 20501 w/o Power Source |
| No. 20530H | Headband LumiView REF 20501 w/o Power Source |
| No. 20520S | Spectacle Flat Surface Magnifier REF 20521 w/ Portable Power Source REF 75200 and Charger REF 74180 |
| No. 20520H | Headband Flat Surface Magnifier REF 20521 w/Portable Power Source REF 75200 and Charger REF 74180 |
| No. 20540S | Spectacle Flat Surface Magnifier REF 20521 w/o Power Source |
| No. 20540H | Headband Flat Surface Magnifier REF 20521 w/o Power Source |
| | Power Sources |
| No. 75260 | Portable Power Source REF 75200 w/Charger REF 74180 |
| No. 75265 | Portable Power Source REF 75200 w/International Charger (specify country and voltage) |
| No. 74180 | Charger REF 74180 only for Portable Power Source REF 75200 |
| No. 74185 | International Charger only for Portable Power Source REF 75200 (specify country and voltage) |
| No. 75210 | Direct Plug-In Power Source REF 75210 |
| No. 75215 | International Direct Plug-In Power Source (specify country and voltage) |

NOTE: The power source options listed above operate with all instrument configurations.

| | |
|----------------|--|
| | Accessories |
| No. 08500-U | Replacement Lamp for Device (all models) |
| No. 205007-501 | Replacement Reflector Assembly |
| No. 72250 | Replacement Battery for Portable Power Source REF 75200 |
| No. 21505 | Insufflation Bulb System for LumiView Models |
| No. 21502 | Pneumatic Speculum Holder with Specula for LumiView models |
| No. 22002 | Poly Speculum 2mm |
| No. 22003 | Poly Speculum 3mm |
| No. 22004 | Poly Speculum 4mm |
| No. 22005 | Poly Speculum 5mm |
| No. 22009 | Poly Speculum 9mm |
| No. 05374-U | Hard case |



NOTE: Only accessories and power sources indicated in this manual are to be used with the Portable Binocular Microscope and Flat Surface Magnifier.

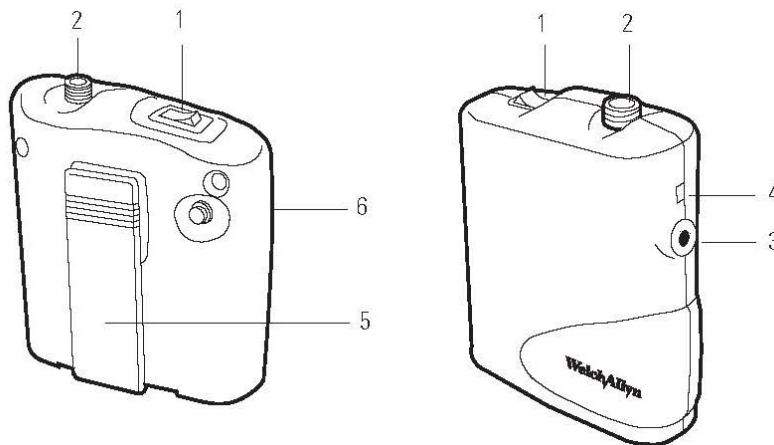
Power Sources (Portable and Direct Plug-In)

Portable Power Source (Welch Allyn Model No. 75200)

This power source is designed for use in both the office and the hospital and is ideal for carrying to satellite offices. Power On time is 90 minutes after a full charge of 16 hours.



Features:



- | | |
|------------------------------|--------------------------|
| 1. On/Off Switch | 4. Charging Indicator |
| 2. Instrument Connector | 5. Belt Clip |
| 3. Charging Transformer Port | 6. Spare Lamp Receptacle |

Specifications:

Battery Type

Welch Allyn #72250 (nickel-cadmium)

Voltage/Capacity

3.6 VDC/1.8 Ahr

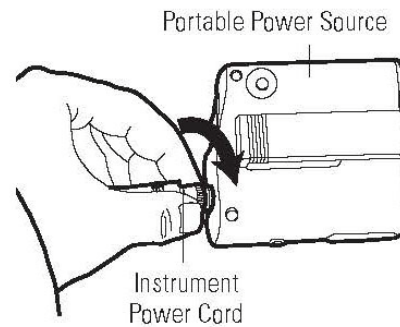
Charger

Welch Allyn #74180

(for international orders, specify country)

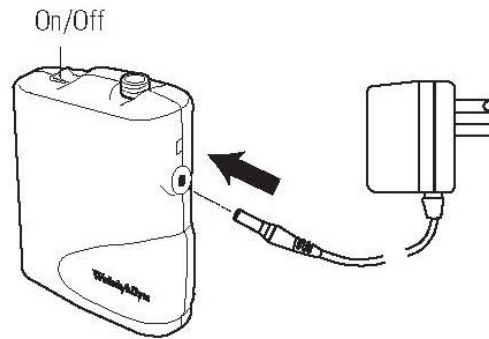
Connecting Instrument to Portable Power Source:

- Plug instrument power cord into the power cord connector port on top of the power source.
- Push in until firmly in place.
- Gently screw the external connector sleeve clockwise to secure (optional).



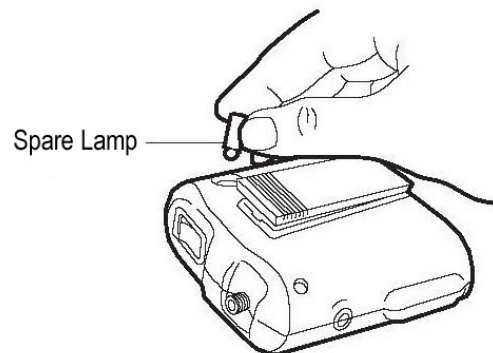
Recharging the Portable Power Source:

- Turn portable power source off.
- Disconnect instrument from power source.
- Plug charging transformer into portable power source.
- Plug charging transformer into wall socket. LED light indicates unit is charging.
- Disconnect charging transformer from power source when fully charged, after 14-16 hours.



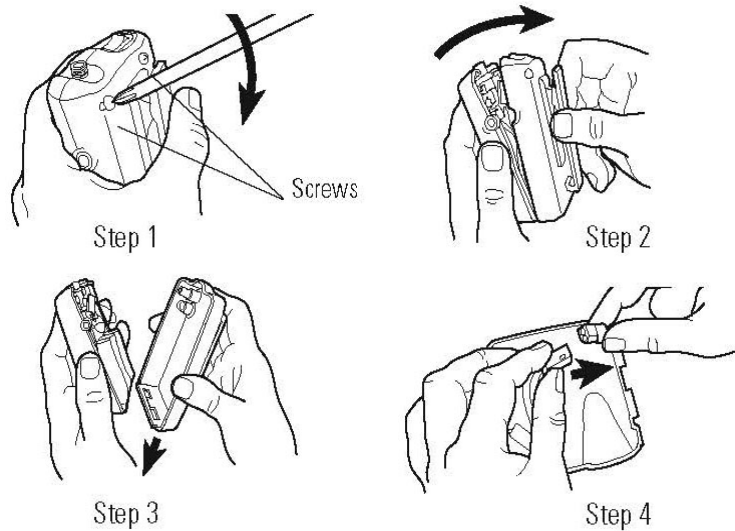
Accessing Spare Lamp

- Lift the spare lamp out of its receptacle and use.



Battery Replacement

- Be sure power is off.
- Remove both screws from back of power source with Phillips head screwdriver.
- Grasp the belt clip, gently pull back and down on the housing. (Steps 2 and 3)
- Lift battery out and unplug from unit.
- Replace with new battery and reverse above steps.



NOTE: Power source housing screws must be securely tightened in order to properly hold electrical components in place.

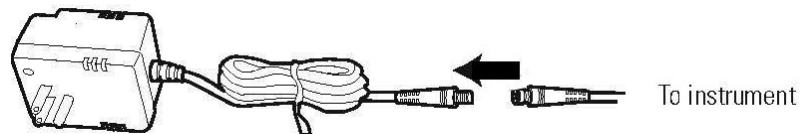


Battery Disposal

Nickel-cadmium battery. Battery must be recycled or disposed of properly.

Direct Plug-In Transformer

- Plug Power cord from the binocular otoscope into the Direct Plug-In Power cord.
- Push in until firmly in place.
- Gently screw the external connector sleeve clockwise to secure (optional).
- The instrument is now ready for use.
- Plug direct power source into a nearby receptacle.



Service and Warranty Information

Service

For customers in North America, please return instruments requiring service to a Welch Allyn Technical Service Department listed below or to an authorized Welch Allyn distributor.

Technical Service Department

Welch Allyn, Inc.
4341 State Street Road
Skaneateles Falls, NY 13153-0220 U.S.A.
Telephone: 800-535-6663 (in U.S.A. only) or (315) 685-4560
Fax: 315-685-4653

For customers outside of North America, return your unit to a local, authorized Welch Allyn distributor or to your nearest Welch Allyn service center.

Warranty

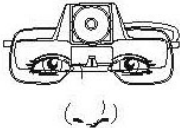
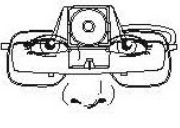
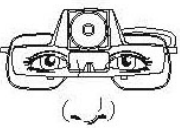
Welch Allyn, Inc. warrants the Portable Binocular Microscope and Flat Surface Magnifier to be free of original defects in material and workmanship and to perform in accordance with manufacturer's specifications for a period of one year from the date of purchase. If this instrument or any component thereof is found to be defective or at variance with the manufacturer's specifications during the warranty period, Welch Allyn will repair or replace the instrument or component(s) at no cost to the purchaser.

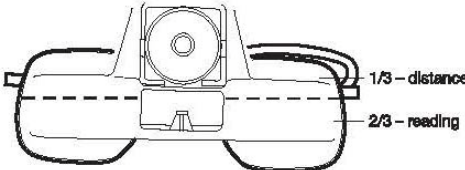
This warranty only applies to instruments purchased new from Welch Allyn or its authorized distributors or representatives. The purchaser must return the instrument directly to Welch Allyn or an authorized distributor or representative and bear the costs of shipping.

This warranty does not cover breakage or failure due to tampering, misuse, neglect, accidents, modification or shipping, and is void if the instrument is not used in accordance with manufacturer's recommendations or if repaired or serviced by other than Welch Allyn or a Welch Allyn authorized representative.

No other express or implied warranty is given.

Troubleshooting Guide

| Problem | Solution |
|--|---|
| <p>Illumination spot is too high and is out of field of view.</p> | <p>Make sure you are 14" to 16" from patient or object under inspection. If you are too close, the illumination spot will be too high.</p> <p>Make sure optical section is aligned with user's eyes. Suggest looking into the instrument when on user. The user's eyes should be centered vertically on the center mirrors.</p> <div data-bbox="760 821 938 947">  </div> <p>A. optical section too high on user</p> <div data-bbox="760 999 938 1125">  </div> <p>B. optical section too low on user</p> <div data-bbox="760 1178 938 1304">  </div> <p>C. optical section centered correctly on user</p> <p>To correct A and B, simply loosen screw on back of optical section and adjust optical section up or down until image is centered.</p> |
| <p>User encounters glare off of the pneumatic insufflation system.</p> | <p>Clean the glass section with alcohol swab or clean cotton cloth.</p> <p>Rotate pneumatic assembly until glare dissipates.</p> |

| Problem | Solution |
|---|--|
| Instrument does not illuminate. | <p>Replace 08500 lamp. See page 11 for instructions.</p> <p>Battery is expired or discharged. See page 15 and 16.</p> |
| Image is distorted or double image is seen. | <p>Instrument must be set correctly for interpupillary distance adjustment. See page 9 for instructions.</p> <p>Depth perception is slightly altered with 3D optical design. Continued usage will improve comfort level.</p> |
| How do I utilize bifocals? | <p>Install bifocal lenses so that only the upper third is for distance and lower two-thirds is for reading. Adjust the nose bridge so that frame sits higher on nose. Then lower the height adjustment. This will ensure that the binocular viewing system will be positioned in front of the reading part of the lenses.</p>  |