Troubleshooting

The following guidelines should be used to determine if your device has reached its end of life or requires servicing. If the corrective actions described in this section do not resolve your issues, please see the warranty section of this manual to have your device serviced.

Optoscope and accessories Troubleshooting Guide

<table>
<thead>
<tr>
<th>Trouble Area</th>
<th>Possible Cause</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No light output</td>
<td>Lamp burned out</td>
<td>Replace the lamp with ADC part #5111N-4</td>
</tr>
<tr>
<td></td>
<td>Wiring lamp installed</td>
<td>Replace the lamp with ADC #5112N-4</td>
</tr>
<tr>
<td></td>
<td>Batteries are depleted</td>
<td>Replace with fresh “AA” batteries</td>
</tr>
<tr>
<td>Instrument head will not connect</td>
<td>Lamp not fully inserted</td>
<td>Re-insert lamp</td>
</tr>
<tr>
<td></td>
<td>Thread/connection is damaged</td>
<td>Service required</td>
</tr>
<tr>
<td>Specula will not attach properly</td>
<td>Wiring specula and</td>
<td>Use only Welch Allyn brand or compatible</td>
</tr>
<tr>
<td></td>
<td>Specula mount is damaged</td>
<td>Service required</td>
</tr>
<tr>
<td>Loose or misaligned magnifying lens</td>
<td>Lens mount is damaged</td>
<td>Service required</td>
</tr>
<tr>
<td>Poor or obstructed view through lens</td>
<td>Lens is dirty</td>
<td>Clean with lint free cloth</td>
</tr>
<tr>
<td>Dim light output</td>
<td>Lens is damaged</td>
<td>Service required</td>
</tr>
<tr>
<td>Visible corrosion on instrument or accessories</td>
<td>Damage from excessive moisture</td>
<td>Service required</td>
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</tbody>
</table>

Ophthalmoscope Troubleshooting Guide

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<td>No light output</td>
<td>Aperture dial is between positions</td>
<td>Replace aperture dial</td>
</tr>
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</tr>
<tr>
<td>Specula is not centered</td>
<td>The specula is not centered</td>
<td>Move specula dial to the full detent position</td>
</tr>
<tr>
<td>Dim light output</td>
<td>Lamp near end of useful life</td>
<td>Replace the lamp with ADC part #5112N-4</td>
</tr>
<tr>
<td></td>
<td>Batteries are depleted</td>
<td>Replace with fresh “AA” batteries</td>
</tr>
<tr>
<td>Aperture or lens wheel will not turn or does so with difficulty</td>
<td>Dirt or damage to mechanism</td>
<td>Service required</td>
</tr>
<tr>
<td>Visible corrosion on instrument</td>
<td>Damage from excessive moisture</td>
<td>Service required</td>
</tr>
</tbody>
</table>

LIMITED WARRANTY

American Diagnostic Corporation (ADC®) warrants its products against defects in materials and workmanship under normal use and service as follows:

1. Warranty service extends to the original retail purchaser only and commences with the date of delivery.
2. The optical system is warranted for one year.

What is Covered:

Repair, or replacement of parts, and labor.

What is Not Covered:

Transportation charges to and from ADC®, Damages caused by abuse, misuse, accident, or negligence, incidental, special, or consequential damages. Some states do not allow the exclusion or limitation of incidental, special, or consequential damages, so this limitation may not apply to you.

To Obtain Warranty Service:

Devices should be contained in their transport/storage cases when being returned to ADC® to ensure that they are not damaged during transport and handling. Do not ship contaminated devices or storage cases to ADC®’s facility.

Send item(s) postage paid to ADC®, Attn: Repair Dept., 55 Commerce Dr., Hauppauge, NY 11788. Please include your name and address, phone no., proof of purchase, and a brief note explaining the problem.

Implied Warranty

Any implied warranty shall be limited in duration to the terms of this warranty and in no case beyond the original selling price (except where prohibited by law).

To Register Your Product, visit us at www.adctoday.com and follow the links

IB p/n 9362-00 rev 4
Printed in the U.S.A.
Device Description and Intended Use

Ophthalmoscope (attachment 5110N, 5111N, 5119N)
The ophthalmoscope is a handheld, battery-powered device containing illumination and viewing optics intended to examine the media (cornea, aqueous, lens, and vitreous), the retina, blood vessels, optic nerve, and other structures of the eye. It is intended to be used by a trained healthcare professional.

Disposable Specula

In a typical diagnostic examination the tip of the disposable speculum is inserted into the ear canal and tympanic membrane.

In conjunction with the pocket otoscope these devices are used in the examination of the ear, nose and throat.

In addition the pocket otoscope is designed to easily be taken into the home and used for personal care.

The Pocket Otoscope consists of a "AA" battery handle (5160N) and Ophthalmoscope instrument head (5140N) with xenon illumination.

Pocket Ophthalmoscope

This device is used to be maintained by a trained healthcare professional.

General Warnings

A warning statement in this manual identifies a condition or practice which, if not corrected or discontinued immediately, could lead to patient injury, illness, or death.

CAUTION:
The retinal exposure dose for a photochemical hazard is a product of the radiant and exposure time. If the value of radiant exposure were reduced in half, twice the time would be needed to reach the maximum exposure limit. In no acute optical radiation hazards have been identified for direct or indirect ophthalmoscopes, it is recommended that the intensity of light directed into the patient's eye be limited to the minimum level which is necessary for diagnosis. Infants, infants, and persons with damaged eyes will be at greater risk. The risk may also increase if the person being examined has had any exposure with the same instrument or any other ophthalmic instruments using a visible light source during the previous 24 hours. This will apply particularly if the eye has been exposed to retinal photography.

CAUTION:
Do not immerse the battery handle in liquid. Consult the cleaning and disinfection sections for further information on cleaning and disinfecting this product. Never clean or disinfect any device with batteries in it.

CAUTION:
Federal law restricts this device to sale by or on the order of a physician or licensed healthcare practitioner.

WARNING:
The carrying cases provided with these devices are intended for long-term storage or transport between facilities or when shipping devices to and from ACD's facility for repair or servicing. Carry cases (including internal lenses) cannot be cleaned or disinfected and should be safely discarded if contaminated. Do not carry the case in a contaminated environment.

WARNING:
Do not place devices or accessories back into carrying case after use on a patient without first cleaning/disinfecting the device/accessories as described in the cleaning and disinfection section of this manual. Carry cases alone (including internal lenses) cannot be cleaned or disinfected or should be discarded if contaminated.

WARNING:
Use of any accessories or materials not indicated in the user's manual can degrade the minimum safety of the device.

WARNING:
Only replace listed accessories (attachments), lamps, or batteries for the device.

WARNING:
During use metal components near instrument head can become warm. This is especially true if device is on for extended periods of time. Do not leave device on when not in use.

Otoscope and Parts Assembly

The Pocket Otoscope consists of a "AA" battery handle (5160N), fiber optic Otoscope head with attached movable viewing lens, and disposable specula (2.75mm and 4.25mm).

Removing and Attaching the Instrument Head

The Pocket Otoscope heads are threaded and can be removed by rotating the threaded connection clockwise, or attached by rotating the threaded connection counterclockwise.

Viewing Lens

To move during an examination, turn the lens bale clockwise to lift up. To reposition, reverse procedure.

Attaching the Disposable Specula

Push the flanged end of the disposible speculum onto the chrome socket and twist counter clockwise to engage. Reverse procedure to remove and discard after each use.

Pneumatic Ophthalmoscope

To perform, insert lateral arm of insufflation tubing (5122N) sold separately, into hole on side of Ophthalmoscope head. Attach optional bulb-mouth assembly (5172N) sold separately.

Ophthalmoscope Parts and Assembly

The Pocket Ophthalmoscope consists of a "AA" battery handle (5160N) and Ophthalmoscope instrument head (5140N) with xenon illumination.

Aperture Selection

This unit is equipped with 5 internal apertures - small, large, semi-circle, red-free, and fixation. To select, rotate the aperture selection wheel at the front of the instrument head.

Corrective Lens Selection

This unit is equipped with 19 corrective lenses from +20 to +20 diopters, available for red-free lenses and fixation. To select, place the corrective lens selection wheel at either side of the instrument head. Selected lenses can be viewed in the lighted panel on the side of the instrument.

Turning Instrument On

To illuminate, slide the on/off switch located on the battery handle counterclockwise. The slit lamp should be off in the opposite direction to turn off.

Replacing Xenon Lamp

Remove the instrument head by turning counterclockwise. Grasp end of lamp from inside base of instrument head and remove. Replace with new lamp, taking care not to touch glass, and place lamp correctly on side of lamp with grooves in lamp socket. NOTE: Allow lamp to cool for five minutes before handling. New lamp has been recently used. (Ophthalmoscope lamp p/n 5111N4, Ophthalmoscope lamp p/n 5117N4-6).

Battery Replacement

This unit requires 2 "AA" batteries. For best performance, we suggest alkaline batteries. To replace, remove the battery cap at the base of the handle by turning counterclockwise and replace battery, taking care to position correctly. NOTE: This instrument should be turned OFF when in use. If storing for extended periods of time, remove batteries completely.

Handling Care and Maintenance

Periodically check the condition of both the batteries, making sure there is no sign of corrosion or oxidation. Always replace BOTH batteries. Alkaline batteries are recommended. Remove batteries from handle if instrument will not be used for an extended period of time.

Cleaning and Disinfection

Basic Cleaning Procedure for Battery Handles, Otoscope and Ophthalmoscope Heads

To clean the interior of the device, prepare a 70% isopropyl alcohol solution and soak a lint free cloth. Wipe down the exterior of the ophthalmoscope head and handle, cleaning all external surface areas. Care should be taken to prevent excess liquid from seeping into the components.

Isopropyl alcohol may be substituted with commonly used, EPA-registered hospital disinfectant wipes for cleaning purposes if desired. Please refer to the directions provided by the manufacturer of the wipes for appropriate instructions for use to ensure effective contact time between the wipes and the device.

It is important to note that solution residue on the magnifying lenses may decrease device performance. All excess cleaning fluids must be carefully wiped clean if these surfaces are cleaned. The lenses of this instrument head may be cleaned with a lint-free cloth or lens paper.

Disposable Specula Cleaning/Disinfection Instructions

Disposable specula should not be cleaned or disinfected in any way. Disposable specula are single patient use only and must be discarded after use. Disposable specula should not be used if they appear to be visibly contaminated or have accidentally come into contact with contaminated materials prior to use.