

## SPECIFICATIONS

### OptiLume Illuminator:

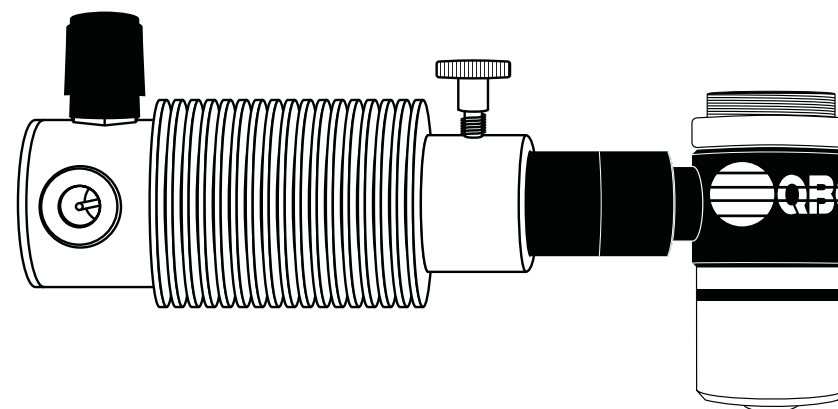
Input:	4 – 24 VDC; 0.7 – 2.5 Amps Center positive DC power connector
Output:	30lm, 470nm
Environmental:	Indoor or outdoor sheltered
Dimensions and weight:	1¼" Diameter × 3⅞ Long (31.75 mm × 79.375 mm) 3.62 oz. (0.10254 kg )
Compliance:	EU MDD 93/42/EEC

### Power Supply:

Input:	100 – 240 V AC; 47 – 63 Hz, 0.4 A
Output:	9V DC, 1.4 A
Compliance:	UL, CE

## REPLACEMENT PARTS

Catalog	Description
424275	ParaLens Adapter - 40X Dry Objective
424273	ParaLens Adapter - 60X Oil Objective
424276	ParaLens Adapter - 100X Oil Objective
427751	OptiLume Light Source
427708	Immersion Oil
427707	Screwdriver
427711	Power Pack w/ Adapters
424278	ParaViewer
427710	QBC Malaria Test Starter Kit
427712	OptiLume System Carrying Case w/ Foam Insert
427713	OptiLume System Carrying Case w/o Foam Insert
427714	Foam Insert for OptiLume System Carrying Case



## Fluorescence Microscopy System

*with OptiLume Light Source*



QBC Diagnostics Inc.  
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Philipsburg, Pennsylvania 16866 USA

4277-060-032 Rev A

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# PRECAUTIONS & MAINTENANCE:

## PRECAUTIONS:

- USE ONLY THE POWER PACK (p/n 427711) THAT IS SUPPLIED WITH THE PARALENS SYSTEM
- Never open the ParaLens System – there are **NO** serviceable parts contained with the ParaLens Adapter or OptiLume Light Source.
- Allow system to cool before cleaning and storage.
- Due to intense light, **NEVER** look into the bottom hole of the objective while the OptiLume is on.
- Handle the OptiLume as a laboratory instrument.

## CLEANING ADAPTER AND OBJECTIVE:

This product utilizes a spring-loaded oil immersion objective. It is recommended that the oil be removed after use. Wipe off excess oil using lens tissue. Wash the surface with an alcohol solution. Use lens tissue or a soft, lint-free cloth. Allow to air dry.

## CLEANING PARAVIEWER:

Wipe the ParaViewer Tube Holder with soft, lint-free tissue. If further cleaning is necessary, use a mild detergent and warm water.

**DO NOT USE SOLVENTS** such as Xylene, Acetone, etc., as these will permanently damage the ParaViewer Tube Holder.

## SERVICE ASSISTANCE:

- In order to obtain assistance with test procedures and equipment operation, contact your nearest QBC Diagnostics representative or office.
- Do not return any equipment without specific instructions from QBC Diagnostics.
- Blood Parasite Morphology is available at [www.qbcdiagnostics.com](http://www.qbcdiagnostics.com).

## ADDITIONAL QBC PRODUCTS:

### ParaLens Adapters:

424275	ParaLens Adapter - 40X Oil Objective
424276	ParaLens Adapter - 100X Oil Objective
253037	Malaria tubes (100 Pack)

### Automated Hematology Equipment:

429000	QBC STAR
428605	QBC AutoRead System
423406	Accutubes (100 Pack)

## OPERATION PROCEDURES:

1. The ParaLens System provides users with epi-fluorescence capability; however, if using with a standard transmission light microscope the microscope's light source should be turned off to use the ParaLens System.
2. When the ParaLens Fluorescence Microscopy System is connected to a power source, it will be "ON". The intensity knob (Item 3, Figure 2) on the ParaLens OptiLume Light Source controls the operating current and the light output of the LED. Turning the knob clockwise will increase intensity. Turning the knob counterclockwise will decrease intensity.
3. Handle the ParaLens Fluorescence Microscopy System as a laboratory instrument.
4. To turn the ParaLens System "OFF", unplug from power source.

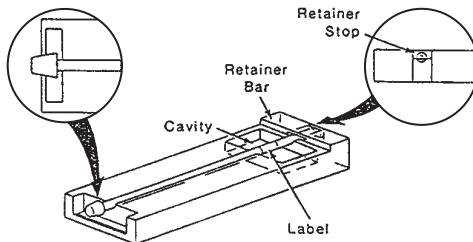
## PARASITE EXAMINATION PROCEDURES (With QBC Malaria Tubes):

### REQUIRED MATERIALS:

- ParaViewer (p/n 424278)
- Standard Microscope equipped with a ParaLens UV Microscope Adapter (p/n 424280)
- Fluorescence Optical Immersion Oil (p/n 427708)
- QBC Malaria Tubes (100 Pack - p/n 253037) (2000 Pack - p/n 253005)

### EXAMINATION PROCEDURES:

1. Insert the centrifuged QBC Malaria Tube into the groove of the ParaViewer Tube Holder. Slide the tube forward in the groove and under the Retainer Bar until the open end of the tube is against the Retainer Stop. This will prevent movement of the tube when it is manually rotated during the microscopic examination procedure in Step (5).
2. Place the ParaViewer Tube Holder with QBC Malaria Tube on the stage of the microscope. Using 10X, wide-field, high-point eyepiece(s) and ParaLens Adapter with objective lens, add 2-3 drops of fluorescence optical immersion oil to top of tube while in ParaViewer. Bring the buffy coat area of the tube into focus.
3. Move the microscope stage until the top of the expanded RBC layer (near the RBC-Granulocyte interface) is in the field of view.
4. Examine the sample.
5. By means of the tube closure, rotate and examine the entire circumference of the tube as it rests in the groove of the ParaViewer. (See package insert instructions with QBC Malaria Tube for description and detection of parasites.)



**Note:** The QBC Malaria Tube may incorporate a small patient ID Label affixed between the white lines on the tube. When properly positioned, the label should be within the cavity of the ParaViewer so that it does not interfere with rotation of the tube in the ParaViewer groove.

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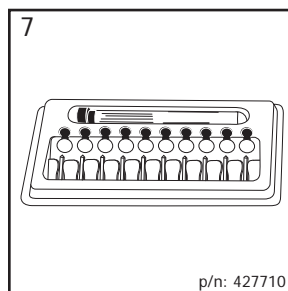
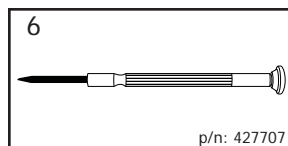
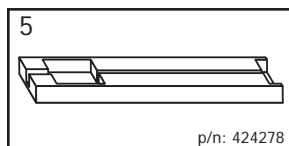
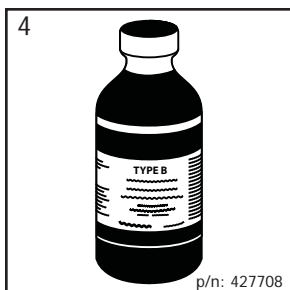
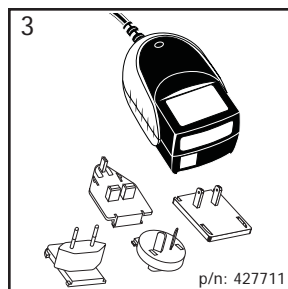
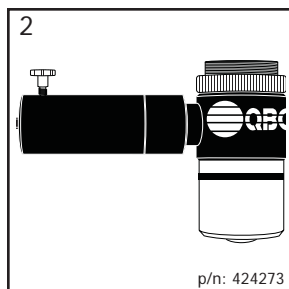
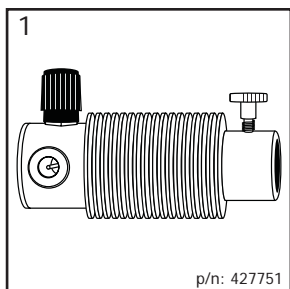
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## STANDARD INCLUDED EQUIPMENT:

1. ParaLens OptiLume Light Source
2. ParaLens Adapter w/ Objective
3. Power Pack w/ Adapters
4. Immersion Oil
5. ParaViewer
6. Screwdriver
7. Malaria Tube Starter Kit (Stored in compartment under Immersion Oil and ParaViewer)



Also included (not shown)

1. OptiLume System Carrying Case w/ Foam Inserts (p/n 427712)
2. Literature Packet (p/n 427709)

## PARALENS ADAPTER SYSTEMS:

### INTRODUCTION:

The ParaLens is a complete epi-fluorescence microscopy system. Contained within the system are the necessary objectives, filter, and beamsplitter for use during fluorescent microscopy. The standard configuration of the objective is appropriate for  $\infty$  tube length microscopes.

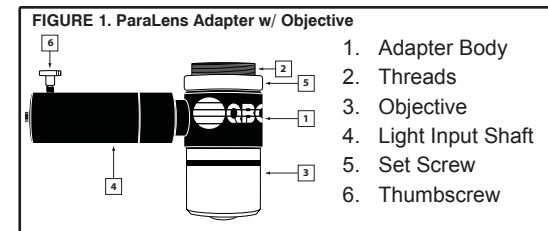


### CAUTION:

The ParaLens System uses a Class 2 LED product. Never stare into OptiLume Light Source or adapter when ParaLens is turned "ON"

### PARALENS INSTALLATION PROCEDURE:

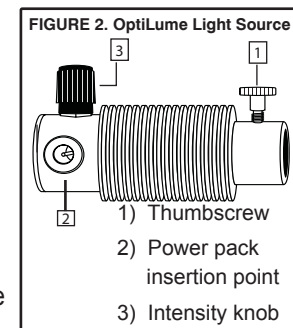
1. The ParaLens Adapter – see figure 1 below – is equipped with a threaded end (Item 2) that turns freely within the ParaLens body (Item 1). To install ParaLens onto a standard microscope begin by aligning the threaded end of the ParaLens Adapter with threaded screw holes in the microscope nosepiece. Turn ParaLens Adapter clockwise to engage threads on microscope nosepiece. Continue until ParaLens Adapter is securely fastened to nosepiece of microscope.



2. The ParaLens Adapter may be rotated to any desired position and secured at given location by tightening the set screw (Item 5) with provided ParaLens screwdriver. It is not necessary to tighten the set screw for the ParaLens to function properly.
3. The ParaLens OptiLume Light Source must now be attached to the ParaLens Adapter.

### OPTILUME LIGHT SOURCE INSTALLATION PROCEDURE:

1. Begin by removing the ParaLens Adapter thumb screw (Item 6, Figure 1).
2. Slide the ParaLens OptiLume Light Source onto the ParaLens Adapter.
3. Tighten thumb screw (Item 1, Figure 2) on ParaLens Optilume Light Source to secure the OptiLume Light Source onto the ParaLens Adapter.



4. If using power pack, select proper wall adapter and connect to power pack by aligning the tabs on the adapter with the slot on the power pack. Push together and slide downward. Power pack and adapter are connected when a "snap" is heard.
5. Plug power pack into ParaLens Optilume light source at insertion point (Item 2, Figure 2).
6. Plug power pack into an approved electrical outlet. **Be sure that outlet is always within reach as line cord is the means of emergency disconnection.**
7. The ParaLens Fluorescence Microscopy System should now be completely installed. A blue light should now be visible below the ParaLens objective.