

LED Fiber-optic Lightsource



Operator & Owner's Manual
Model #APFL-LED-45

api
anthony products, inc.

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1. INTRODUCTION

Congratulations on the purchase of your new APFL-LED-45 LED Light Source!

This user-friendly non-regulatory version is a high efficiency light source which utilizes state-of-the-art superior illumination technology. It offers a variety of features such as:

- 6500^o K daylight brightness for perfect color definition
- Quiet operation
- Long lamp life, 10,000 hrs.
- Compact and light weight
- Turret which adapts to various types of light guides
- Pulse-width Modulation (PWM) Electrical Dimming

In short, you have chosen the best and we would like to make sure you receive optimal results with your new LED Light Source by using it correctly.

This Operator Manual will help you to install the device and optimally integrate it with other components of your system. It will also instruct you on how to operate the LED Light Source and how to keep it clean. It will give you maintenance and service guidelines as well as recommendations for best performance results.

2. WARNINGS



To prevent fire or electric shock, do not open or expose the light source unit to rain or moisture. Refer all servicing to qualified personnel only.

To prevent any potential electro-magnetic interference, do not use any kind of cellular phone near the light source.



Caution

Light source can cause permanent eye damage if viewed directly with unprotected eye. To reduce the chance of eye damage, **always** set the intensity control to the minimum level and plug the fiberoptic cable into the unit before turning **on** the power.

3. SPECIFICATIONS

Item	Specification
Lamp type	LED (Light Emitting Diode)
Power	45 Watt
Color temperature	6500° K
Lamp life	10,000 hours (typical)
Light guide adapter	Turret type to fit your choice of four: Storz, ACMI, Wolf, Olympus
Brightness control	PWM (Pulse-width Modulation)
Input voltage	90-240V AC, 50/60 Hz
Power consumption	124 watts max.
Regulatory Approvals	N/A
Equipment Class	N/A
Mode of Operation	Continuous operation
Water Resistant	Not Protected Equipment, IPX0
Operating Environment Temperature Relative Humidity Air Pressure	+0° to +40° C (32° to 104° F) 0 to 95%rh, non condensing 700 to 1060 hPa
Storage Environment Temperature Relative Humidity Air Pressure	-20° to +60° C (-4° to 140° F) 30 to 95%rh, non condensing 700 to 1060 hPa
Dimensions	4.39 (111.5) W x 4.25 (107.9) H x 6.96 (176.78) D
Weight	3.0 lbs./1.36 kg

4. OPERATING ELEMENTS, SYMBOLS AND FUNCTIONS

4.1 FRONT PANEL

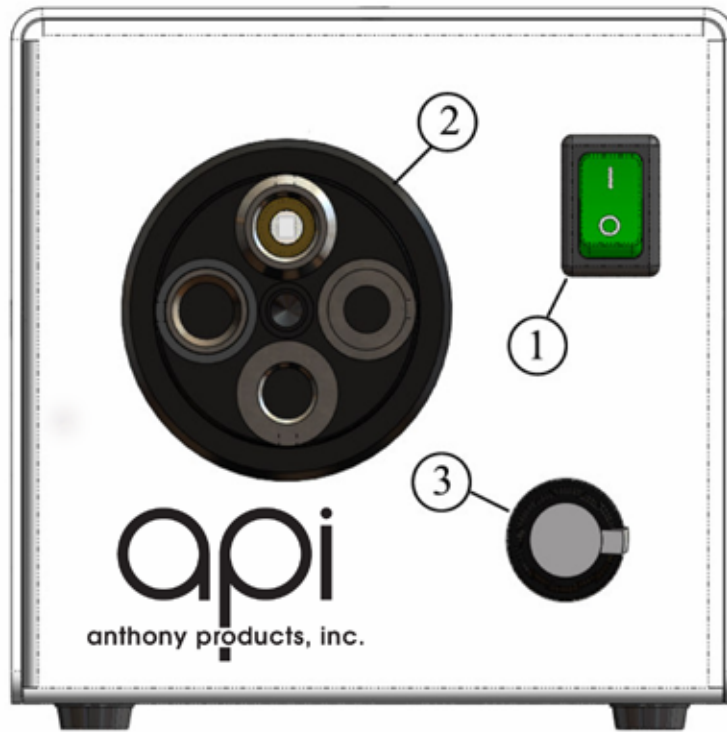


Figure 1. Light Source Front Panel

No.	Name	Function
1	Power switch	Turns the light source on and off. Fan will operate.
2	Light guide adapter	Turret type to fit your choice of four: Storz, ACMI, Wolf, Olympus
3	Intensity Control	Electronically controls the light output

4.2 REAR PANEL

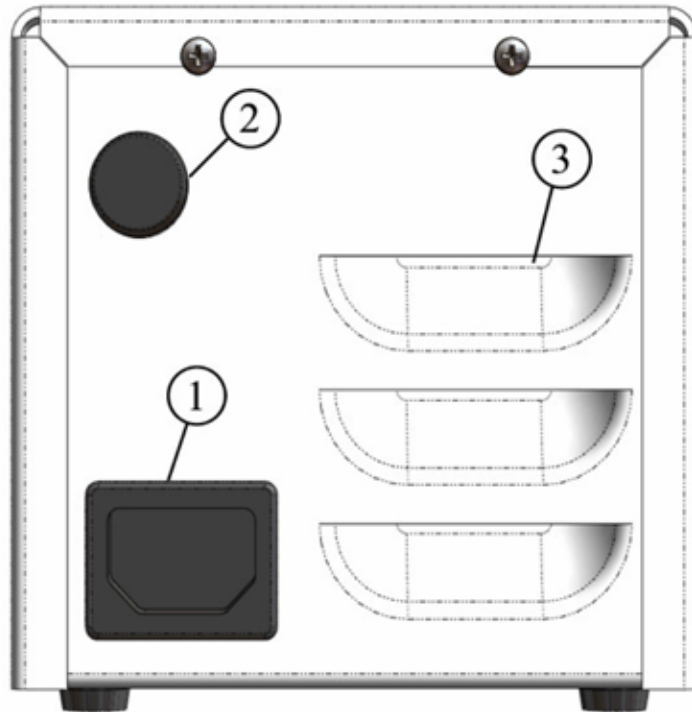


Figure 2. LED Light Source Rear Panel

No.	Name	Function
1	AC main inlet	Accepts AC Power cord
2	Fuse	2 AMP (1/4"x 1-1/4") time delay 250V
3	Venting grids	Allow adequate ventilation and cooling of the light source

4.3 BOTTOM PANEL



Figure 3. LED Light Source Bottom Panel showing Product Label

5. INSTALLATION

5.1 SETTING UP THE LIGHT SOURCE

Place the light source on a stable surface (cart, counter, stand, etc.).

NOTE: *Avoid places where the light source may be splashed with liquid.*

Absolutely DO NOT use in any environment with explosive or flammable gases.

DO NOT block the venting grids of the light source.

Make sure the power switch is in OFF position.

Connect AC power cord to the power inlet located on the rear panel of the light source.



Use only cords provided with the light source.

Plug the AC power cord into a wall outlet using the three-prong plug supplied with the unit.



To prevent electric shock, connect power cords of peripheral equipment through isolation transformers.

NOTE *When using isolation transformer, be sure to check the transformer power ratings. Make sure that the power cord is connected to the main power with three-prong plug (USA use UL2601-1 rated isolation transformers and/or power strips only).*



When used in residential areas near radio or TV units, this equipment may be subjected to radio interference. To avoid adverse electromagnetic effects, DO NOT operate this equipment near RF energy equipment.

5.2 CONNECTING THE LIGHT CABLE

Turn intensity control to the minimum setting. Connect the light cable to the instrument and then plug the light cable endfitting into the port on the front panel.

6. OPERATION

6.1 POWERING UP THE LIGHT SOURCE

To operate the light source: Turn on the power switch. The fan will start. The indicator on power switch will light.

6.2 LIGHT BRIGHTNESS DISPLAY AND CONTROL

The light brightness adjustment enables the user to obtain a brighter or darker illumination of the object of observation.

Adjust the light intensity by turning the intensity control knob.

7. CLEANING

NOTE: *Always disconnect the power cord before cleaning the system.*

The control unit can be cleaned with any cleaning agent, which is used for external cleaning of electric equipment, according to instructions given by the manufacturer of the cleaning solution.



Do not allow excessive moisture or liquids to come in direct contact with the control unit.



Do not use cleaning agents that are not permitted for use with plastics, i.e., ammonia, acetone, salty acids (HCl), etc.



Do not allow cleaning agents or liquids to enter the control unit outlets.

8. MAINTENANCE, SERVICING AND REPAIR

Performance of preventive maintenance is not essential. Regular maintenance can, however, contribute to identifying potential problems before they become serious; thus, enhancing the reliability of the instrument and extending its useful operating life.

Maintenance services can be obtained from Anthony Products. Please call 800-428-1610 for more information.

Defective items of equipment are to be serviced and repaired exclusively by persons authorized by the manufacture. All repair work shall employ original manufacturer's parts only.

8.1 LIMITED WARRANTY

Your fiberoptic product(s) carry a 1-year warranty from the date of shipment on defective materials and/or workmanship. Warranty does not cover equipment subject to misuse, accidental damage, normal wear and tear or if transferred to a new owner without authorization from Anthony Products, Inc. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Should your product prove to have such defects within one year of the date of shipment, Anthony Products, Inc. will repair or replace the product or component part without charge.

Should your fiberoptic product(s) need servicing under this warranty, please contact Anthony Products, Inc. for return authorization documentation. You should carefully pack unit in a sturdy carton and ship it to the factory. Please include a note describing the defects, your name, telephone number and a return address.

POST WARRANTY REPAIRS: You may return your product(s) for repair, shipping prepaid to the factory. Please contact Anthony Products, Inc. for return authorization documentation. Your product will be inspected and an estimate of repair charges will be submitted to you for approval. Payment must be received before repairs are completed.

- In the US: 800-428-1610
- FAX number: 317-543-3289

11. TROUBLESHOOTING

<u>Problem</u>	<u>Solution</u>
The power indicator (refer to 4.1) is not lit.	A. Check that the AC power cord is properly connected. B. Check the unit's fuse. If necessary, replace.
The power indicator is lit, but lamp will not light	Turn intensity control knob clockwise to increase light output intensity.