

Operation Manual

Fiber-Lite®

MI-LED ILLUMINATOR

A Product of Dolan Jenner Industries

Introduction

The Fiber-Lite® MI-LED is a bright white, LED powered, fiber optic illuminator designed for general microscopy use. When used with specialty fiber optic cables the MI-LED illuminator can also be used in a variety of laboratory illumination applications.



Caution: Possible hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes. In accordance with the EN 62471 standard the MI-LED Illuminator is a product of Risk Class 2.



Warning ! : This label designates an area that may pose a health hazard. Caution should be used wherever this label is present.



Warning Hot Surface: This label designates an area that may be hot to the touch and caution should be used.



Warning Risk of Electrical Shock: This label designates an area that poses an electrical hazard and caution should be used.

Initial Setup

- 1) Remove the MI-LED Illuminator from the carton and retain any additional items and accessories.
Inspect the unit for any physical damage that may have occurred during shipment. Please contact your supplier immediately if any damage is observed.
- 2) If the illuminator was purchased as part of a Fiber Optic system, remove the fiber optic cable from the carton. If the system includes an EEG2823M or BG2820M self-supporting gooseneck fiber optic cable then also remove the LH759 lens(es) from the carton. The EEG2823M (dual) fiber optic system include two(2) LH759 lenses while the BG2820M (single) system includes one(1) LH759 lens.
- 3) Loosen the fiber optic nosepiece thumbscrew.
- 4) Insert the fiber optic tip into the illuminator nosepiece. If the fiber optic is either an EEG2823M, or BG2820M self-supporting gooseneck style cable then the tip of the cable will have a small dimple in the tip. The dimple in the tip will properly align the fiber optic cable in the nosepiece and prevent rotation of the cable. Align the dimple in the tip with the nosepiece thumbscrew. Ring light fiber optic cables do not have a dimple and can be installed without special alignment.
- 5) Tighten the thumbscrew by hand to make a secure connection to the fiber optic. Use of pliers or other tools is not recommended. Use of tools may result in damage to the illuminator or the fiber optic cable.
- 6) Locate the Mi-LED in a workspace that allows for proper airflow. The Mi-LED is fan cooled and requires 2 inches of space on each side for air flow.
- 7) Insert the AC power cord into the power entry at the rear of the illuminator. Use only approved power cord supplied with the illuminator.
Insert the AC power cord into the proper AC mains outlet for the illuminator voltage ordered. If any doubt exists consult the labels on the rear and underside of the illuminator before connecting the illuminator to AC power.

Fiber Optic Connection

The MI-LED(B1) illuminator uses a B-type fiber optic nosepiece with a 0.590 in. (15mm) ID. B-Type nosepieces will accept self-supporting goosenecks (EEG2823M, BG2820M) and ring light (A3739M) fiber optics without the need for an adapter. Fiber optics smaller than the 0.590 in. (15mm) ID will require an optional adapter.

Operation

All the MI-LED series illuminators are equipped with a front panel manual solid state intensity control.

Press the ON(1)/OFF(0) rocker switch on the front panel to ON(1). The illuminator will light and is ready for service. The illuminator intensity is controlled by the rotary control located on the front panel of the illuminator. The 0 position (when control is turned fully counter-clockwise) corresponds to the lowest illuminator intensity. The 100 position (when control is turned fully clockwise) corresponds to the highest illuminator intensity.

NOTE: There is not a replaceable internal lamp. Long life LED's provide bright illumination for the lifetime of this fiber optic illuminator.



Risk of electrical shock. Illuminator should be in upright position and remove power cord before Fuse replacement.

WARNING

Replace the fuse with the correctly rated fuse as listed on the label on the back of the illuminator. Use of an improper fuse can create a hazardous condition.

Fuse Replacement

- 1) Press the ON(1)/OFF(0) switch to the OFF(0) position.
- 2) Remove the AC line cord from the power entry module at the rear of the illuminator.
- 3) The fuse drawer is part of the power entry module. The drawer is located directly beneath where the AC line cord plugs in.
- 4) Remove the fuse drawer. Only one fuse is required. Remove the blown fuse from the drawer and discard.
- 5) Place the replacement fuse into the fuse holder by inserting either end of the fuse into the fuse holder.
- 6) Push the fuse drawer until it "clicks" into position.
- 7) Attach the AC line cord to power entry module at the rear of the illuminator.
- 8) The illuminator is now ready for service.

Replacement Parts

Mfg Part No. 020153203200 Fuse, 2A, 5 x 20, 250 V, slow blow

Only above parts are replaceable. Return illuminator to factory for warranty service. Any attempt to open the unit or replace other parts voids warranty.

Performance Statement

Dolan-Jenner Industries, Inc. (DJI) recognizes that its illuminator products may be used under an almost unlimited variety of conditions. As such, we are prepared to assist the customer in the selection and application of any of these products. This includes application engineering, sample testing and other means as determined by DJI. Where DJI has made specific recommendations for its products, systems, or detection techniques (based on complete and detailed information furnished by the customer) we will extend every effort to assure that the customer is satisfied with the performance of our products. Continual development and improvement of DJI products may require changes in details that do not coincide with descriptions or illustrations shown. All fiber optic cable diameters are nominal.

Two Year Warranty on Light Sources

Dolan-Jenner Industries, Inc. (DJI) warrants its products to be free from defective material and workmanship. Any light source or parts thereof which are determined by DJI to be defective within 2 years from shipment date will be replaced or repaired at our option. All fiber optics are warranted for one year. This warranty specifically excludes fuses.

Any products which, in our opinion, have been subjected to misuse, incorrect wiring, or where installation procedures are not in accordance with the instruction manual, are excluded from this warranty. Nor does this warranty extend to products on which repairs or alterations have been made outside the factory, or on which the identification or serial number has been altered or to accessories not of our manufacture.

Our obligation with respect to products or parts covered by this warranty shall be limited to repair or replacement, F.O.B., Boxborough, Massachusetts. In no event shall DJI be held liable for consequential or special damages, for transportation, installation, adjustment, or other expenses which may arise in connection with such products or parts. This warranty is in lieu of all other statements or warranties or guarantees, written or implied, by DJI or its authorized representatives.

Important: Please contact factory for a return authorization number prior to shipping merchandise to factory.

Technical Data

LED

Input Power	100 -240 VAC, 120W, 50/60 Hz, 0.5A-1.2A
LED Life	Approximate: 40,000 Hours (D70)
Fuse	2 Amp, 250V, 2 A slow blow, 5 x 20 mm
Color Temperature	4500-5500 degrees Kelvin
Safety Approvals	ETL, CE
Dimensions	9 in. L x 7 in. W x 4.9 in. H 22.9 cm L x 17.8 cm W x 12.4 cm H
Weight	6.0 lbs. (2.7 kg.)
Max. Housing Temp.	30°C above ambient

Environmental Conditions Use Specifications

Type of Use	Indoor at max. altitude of 2,000 m
Location/Ventilation	Fan cooled, allow 2" on each side for air flow
Ambient Temperature	+5°C to +40°C
Relative Humidity	80% maximum up to +31° C (non-condensing) decreasing linearly to 50% relative humidity @ +40° C
Installation Category	II
IP Rating IEC 60529	IPX-0
Pollution Degree	2
RoHS Compliant	Yes

NOTICE: If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

NOTICE: Cleaning of the equipment is not recommended. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Corporate Headquarters and Factory:

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