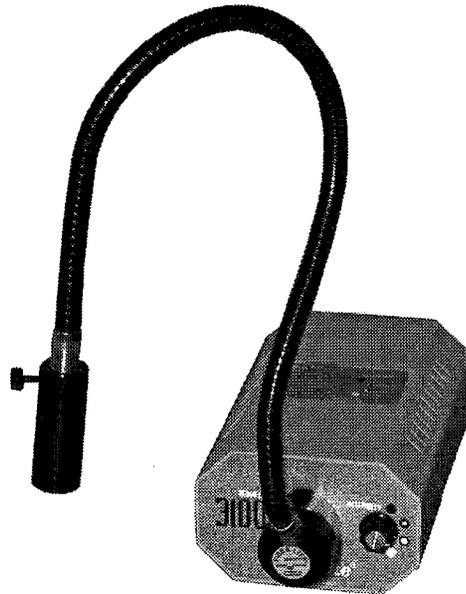


Fiber-Lite®

Model 3100 Fiber Optic Illuminator



OPERATION MANUAL • TECHNICAL REFERENCE

Dolan-Jenner *industries*

DOLAN-JENNER INDUSTRIES
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Electro-Optical Components & Systems for Industry

Fiber-Lite[®]

Model 3100

FEATURES:

- ✍ Intense cool uniform illumination
- ✍ Solid State Intensity Control
- ✍ Simple Lamp Change
- ✍ Significantly higher output than conventional microscope illuminators
- ✍ Longer lamp life, up to 5,000+ hours. Major cost savings to operate vs. conventional hot illuminators
- ✍ Controllable, flexible illumination put light exactly where you need it
- ✍ Small, contemporary illuminator package
- ✍ Minimal light leakage from source
- ✍ Safe to operate - efficient cooling. Source is cool to touch!
- ✍ Accepts wider range of fiber optic configurations, lenses and filters
- ✍ Meets illumination requirements of Mil-Spec 2000
- ✍ Ideal for stereomicroscope applications, semiconductor and surface mount inspection, machine vision requirements
- ✍ Unit can be hard mounted to specialty equipment

INTRODUCTION

The Fiber-Lite 3100 - Affordable Fiber Optic Illumination is a superior alternative to hot halogen microscope illuminators, high intensity lamps and fluorescent rings. Applications include stereomicroscope illumination and machine vision lighting.

Dolan Jenner's Model 3100 Fiber Optic Illuminator provides high intensity "cold" light. Fiber optics absorb heat and transmit high intensity illumination. The Model 3100 interfaces to a wide range of fiber optic configurations. (Visit Dolan-Jenner's Web Site for details.) The two most commonly used systems are:

System 3100-1

10,000+ Ft. candles at 3". The system features a positionable gooseneck fiber optic interfaced to a focusing lens. The versatile system can be mounted in microscope ports for oblique spot lighting or transmitted illumination. This system is ideal for temperature sensitive applications such as specimen preparation, dissection, culture work or micromanipulation. Also inspection and assembly of electronic components.

Consists of:

Model 3100 Illuminator, BGG 1823 self-supporting light guide, LH-759 focusing lens, SX-10 adapter.

System 3100-A37P

Provides shadow-free illumination for an extended working range from 1½" to 9¼". Interfaces to most stereomicroscopes and many vision systems on the market. (Visit Dolan-Jenner's Web Site for details.)

Consists of:

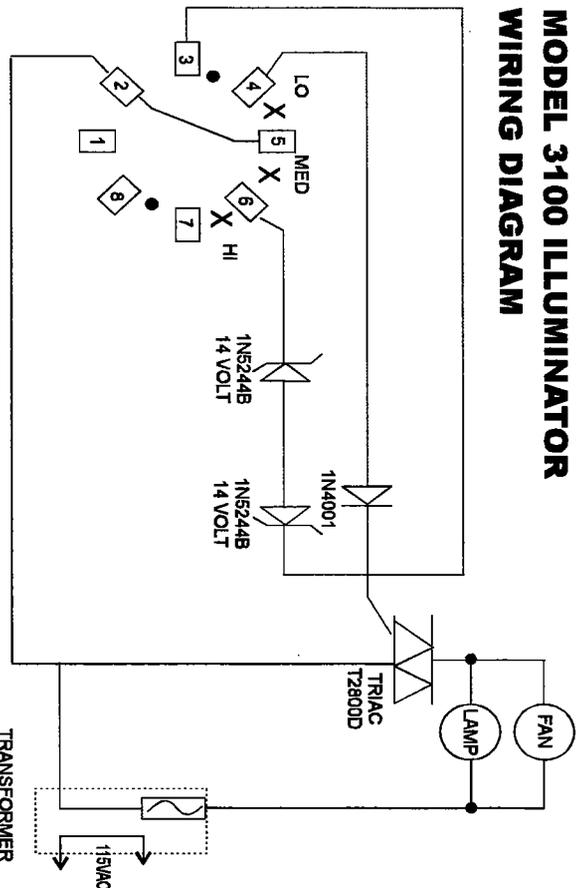
3100 Illuminator, A3739P Annular Fiber Optic, SX-10 adapter. Meets specifications of Mil-Spec 2000. (Visit Dolan-Jenner's Web Site for details.)

LAMP REPLACEMENT

1. Unplug the light source before changing the lamp.
2. Remove fiber optic from the unit.
3. Turn unit upside down. Loosen four captive screws using a 7/64 Hex Allen Wrench (provided).
4. Turn unit right side up and carefully remove cover.
5. Remove lamp from lamp retainer.
6. Unplug the lamp from its socket.
7. Reverse the procedure to install new lamp.

Important: Make sure that lamp has had time to sufficiently cool (about 10 minutes) before changing. Use only EKZ replacement lamp. Insure that the green label on the fan is facing outward towards the rear of the light source for proper heat exhaustion.

MODEL 3100 ILLUMINATOR WIRING DIAGRAM



SPECIFICATIONS FOR 3100 ILLUMINATOR

Fiber-Lite 3100	115/120 VAC, 60Hz
Dimensions HxWxD inches (cm)	3'x4½"x6½" (7.6x11.4x16.5)
Weight	4½ lbs. (2 kg.)
Lamp Type	Focused Quartz Halogen
	30W EKZ
Lamp Life (Average) Low Setting	5,000+ hrs.
Lamp Life (Average) Medium Setting	2,000 hrs.
Lamp Life (Average) High Setting	200 hrs.
Intensity Control	3 Position Switch
Enclosure	High Impact Plastic

ORDER CODES FOR MODEL 3100 SYSTEM & COMPONENTS

Description	Order Code
Fiber Optic Illumination System	3100-1 (Complete)
Consists of: Illuminator	Model 3100
3/16" (4.76mm) Self Supporting Fiber Optic	BGG 1823
Focusing Lens	LH-759
Adapter	SX-10
Ringlight Fiber Optic	A3739-P
*Microscope adapter kit	360-1 MAP thru 360-12 MAP
Mini Ringlight Fiber Optics	MA3136 (requires SX-10)
	MA2536, MA436
	(require SX-6)

* Adapter SX-5 for 1/8" (3.17mm) and SX-6 for 1/4" (6.35mm) diameter bundles

3100 REPLACEMENT PARTS

Transformer	686009-02455
Lamp (EKZ)	686009-02469
Intensity Control Board	686009-02442
Rotary Switch	686009-02481
Fan	686009-02436
Lamp Socket	686009-02496

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 bundle diameters are nominal.

WARRANTY - TWO YEARS 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 two years from date of shipment will be replaced or repaired at our option. All fiber optics are warranted for one year. This warranty specifically excludes both incandescent and quartz-halogen lamps, and optical filters.

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. Lawrence, Massachusetts. In no event shall DJI be held liable for consequential or special damages, or 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.