

Nikon®

Nikon Instruments Inc.

“NI” Series Illumination Systems



Choosing the appropriate illumination system for your stereo microscope that provides bright, even illumination over the entire field of view is easy with Nikon's "NI" Series Stereo Illumination Systems. Nikon's fiber optic systems, with a 150W or 30W transformer and our fluorescent ring illuminator allows you to match the perfect illumination system to your microscope and your application.



NI-150



NI-30



Fiber Light Guides
and Accessories



Fluorescent
Ringlight



• **NI-150: 150 Watts of High Intensity Fiber Optic Episcopic Illumination**

The NI-150 is the microscopy illuminator the industry has been waiting for. Every aspect of the NI-150 was built with the microscope user in mind. This 150 watt wonder delivers 350,000 foot candles of high-intensity, cold light illumination with a lamp life of over 1,000 hours. The NI-150 is available in 115V and 230V and is UL, CE and c-UL approved. A wide variety of accessories are available, including single and dual gooseneck light pipes, ringlights, a diascopic adapter for the Nikon C-DS Diascopic Stand, focusing lenses and filters. It features a 0-100% intensity control knob and a sleek, modern design with a handle built into the housing. A convenient side door makes changing lamps fast and easy, while audible noise and vibration is minimal.



• **NI-30: Fiber Optic Illuminator**

Sophisticated yet affordable, the NI-30 offers the value-conscious buyer many of the features found in the NI-150. The rugged, convection-cooled enclosure eliminates all noise and vibration for those users with tight workspaces and/or critical applications. The NI-30 is a 30 watt quartz halogen unit that comes standard with a single fiber optic gooseneck light pipe and delivers 10,000 foot candles of intense, cold illumination. Dual gooseneck light pipes and ringlights are also available. Incorporating the NI-150's most popular features, the NI-30 is a well-designed economical illuminator.

• **Fiber Light Guides and Accessories**

A variety of optional accessories are available for both the NI-150 and NI-30, including dual and single fiber optic gooseneck light pipes, fiber optic ringlights, focusing lenses, and filters. As an additional option to the 20V Lamphouse for the 83311 C-Diascopic Stand, Nikon offers a fiber optic cable and adapter to allow the use of the NI-150 illuminator for bright, even 150W diascopic illumination.



Fiber Optic Ringlight Compatibility

	Ringlight A	Ringlight B
SMZ-645/660	✓	
w/o Auxiliary Lens:		
With 83340 0.5x:	✓	
All other auxiliary lenses (except 83344 ERGO Lens)		✓
SMZ-800		
With all SMZ-800 (P) Objective (except 83466 ERGO Lens)	✓	
SMZ-1000		
With all SMZ-1000 (P) Objectives (except 83473 P-ED Plan APO 2x)	✓	
With 83473 P-ED Plan APO 2x		✓
SMZ-1500		
All SMZ-1500 HR Objectives (except 83482 1.6x Lens)	✓	
SMZ-U		
With all SMZ-U Lenses (except 83064 2.0x ED)	✓	
With SMZ-U 83064 2.0x ED		✓

Please note: You cannot use a ringlight with the ERGO lenses or the 1.6x HR lens for the SMZ-1500. Also note: Ringlight B can be used in place of Ringlight A. Ringlight A cannot be used in place of Ringlight B.

Standard Features of the Hi-Performance

NI-150 Light Source:

- Side door provides easy access to lamp and heat filter
- Sleek housing design substantially reduces audible noise and vibrations
- Unit is cool to the touch
- Continuous 0-100% intensity control provides full variation in brightness

Standard Features of the Economical NI-30 Light Source

- Side door provides easy access to lamp
- Convection-cooled, for zero noise, zero vibration
- On/Off switch

Both of These Exceptional Light Sources Share Many of the Same Features

- Small footprint fits in tight spaces
- Built-in handle stays out of the way
- Minimal light leakage for photo-sensitive applications
- Available in 115 or 230 VAC 50/60 Hz for worldwide applications
- UL, CE and c-UL approved for global use
- 10 year warranty

• Fluorescent Ringlight

This high efficiency, compact ringlight has a built-in transformer which frees up workspace. An on/off intensity switch is conveniently located at the user's fingertips. Bulb replacement is quick and easy. The hi-frequency electronic ballast and non-flickering fluorescent operation makes it a perfect light source for still photography and CCTV. The Fluorescent Ringlight will fit directly onto the SMZ-645/660, SMZ 800/1000 and SMZ-1500 and can also be used with the old style stereomicroscopes (SMZ-1/1B, SMZ-2B/2T) with the 83317 Ringlight Adapter (it cannot be used with the ERGO objectives or the 1.6x HR objective on the SMZ-1500).

Fluorescent Ringlight Features:

- Instant Start – No ballast humming
- Unique eye-easing phosphor
- Control (High & Low Positions) Intensity
- Hand formed full spectrum white bulbs for even illumination
- Cooler bulbs for longer life, increased lumen output
- Energy efficient lower wattage, grounded cord set for added safety

Technical Information:

	NI-150	NI-30
Lamp:	EKE, 21 Volt, 150 Watt	EKZ 10.8 Volt, 30 Watt
Voltage:	115 VAC, 50/60 Hz	115 VAC, 50/60 Hz
	230 VAC, 50/60 Hz	230 VAC, 50/60 Hz
Color Temperature:	3250 ⁰ K with EKE Lamp	3250 ⁰ K with EKZ Lamp
Intensity Control:	0-100%	---
Fuse (115V):	3A 5 x 20mm slow blow	0.5A 5 x 20mm 250V slow blow
Fuse (230V):	2A 5 x 20mm slow slow	0.5A 5 x 20mm 250V slow blow
Noise Level:	<24dB	0.0
Safety Approvals:	UL, CE, c-UL	UL, CE, c-UL
Dimensions:	6.0" (l) x 8.5"(w) x 5.3(h) 152mm(l) x 216mm(w) x 135mm(h)	6.0" (l) x 8.5"(w) x 5.3(h) 152mm(l) x 216mm(w) x 135mm(h)
Weight:	7.75 lbs (3.5kg)	7.75 lbs (3.5kg)



All of our illumination systems are an excellent compliment to Nikon's SMZ series of stereomicroscopes:

SMZ-645/660 Greenough stereomicroscopes

- 6.3:1 zoom ratio
- 45° and 60° eyepiece inclination respectively
- Airtight, anti-mold, anti-electrostatic
- Plain, diascopic, and boom stands available
- Many ergonomic features
- SMZ-660 is a popular choice for many OEM applications

SMZ-1500 and SMZ-1000/800 parallel stereomicroscopes

- 15:1 zoom ratio - SMZ-1500
- 10:1 zoom ratio - SMZ-1000
- 6.3:1 zoom ratio - SMZ-800
- Standard, low eyelevel and tilting binocular body tubes
- Single and dual port Beam Splitters (allows the use of a variety of photographic systems)
- Superior optics
 - Plan Achromats, Plan Apochromats and ED Plan objectives for SMZ-1000/800
 - HR (high resolution) Plan APO objectives for SMZ-1500
- Unsurpassed performance

Main Units

- | | |
|-------|--|
| 83365 | C-NI-150 Light Source w/ Heat Filter 115V |
| 83384 | C-NI-150 Light Source w/ Heat Filter 230V |
| 83385 | C-NI-30 Light Source, 115V w/ Single Gooseneck |
| 83368 | C-NI-30 Light Source, 230V w/ Single Gooseneck |
| 83360 | C-Fluorescent Ringlight |

Accessories

- | | |
|-------|--|
| 83369 | C-Fiber Adapter and Cable for C-DS Diascopic Stand |
| 83371 | C-Dual Gooseneck Light Pipes Diascopic Stand |
| 83372 | C-Single Gooseneck Light Pipes |
| 83373 | C-Focusing Lens |
| 83374 | C-Ringlight A |
| 83375 | C-Ringlight B |
| 83376 | C-Heat Filter |
| 83377 | C-Daylight Correction Filter |
| 83378 | C-Filter Holder |
| 83361 | C-Replacement Ringlight for Fluorescent Ringlight |
| 83317 | C-O A Ringlight Adapter |

Other lighting accessories for stereomicroscopes available from Nikon include:

OCC (Oblique Coherent Contrast) Transmitted Light Stand

- Allows colorless and transparent samples to be observed in high relief

Brightfield/Darkfield Transmitted Light Stand

- Seven sided torodial darkfield mirror reduces stray light and increases contrast

Coaxial Reflected Light Illuminator

- For Nikon parallel design stereomicroscopes
- Excellent for highly reflective items such as polished metals and microelectronics

Fluorescence Illuminator

- For Nikon parallel design stereomicroscopes, this illuminator features a four-position filter slider
- Can be used for studying live specimens, as well as industrial samples such as observing residual photo-resist.