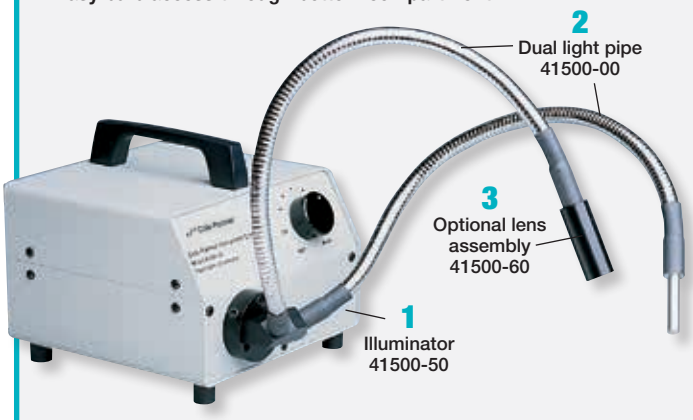
Cole-Parmer® Fiber Optic Illuminator System

Configurable to your needs

– Handle allows for convenient transporting
– Easy bulb access through bottom compartment



Cole-Parmer®

REQUIRED
System Components

1) **Illuminator**
2) **Light pipe**—select a single, dual or ring light pipe. Connects directly to illuminator without an adapter.
3) **Optional lens assembly**—use with single or dual light pipe.

1. Illuminator

This low-noise illuminator features a stepless control knob to dial in the desired intensity. Includes 5-ft (1.5-m) power cord; 115 VAC model includes three-prong plug.

Specifications

Lamp color temperature: 3250 K at full output **Bulb life:** 200 hours

Wattage	Illuminator dimensions	Power	Catalog number	Price
150 watts	7 1/4"W x 6 1/4"H x 7 1/4"D (18.4 x 15.9 x 18.4 cm)	115 VAC, 60 Hz	GY-41500-50	
		230 VAC, 50 Hz	GY-41500-55	

GY-09741-02 **Replacement bulb;** 150 W, quartz halogen. Maximum 200-hour life. Color temperature is 3250 K

2. Light Pipes

Single and Dual Light Pipes feature a self-supporting, chrome-plated sheathing for accurate positioning. Order the optional lens assembly 41500-60 to vary the illumination spot.

Ring Light Pipe provides a full 360° ring of cool, white illumination. Ring mounts directly to your stereomicroscope pod. No adapter is needed for the following microscopes: Wild M3, M5A, M7, and M7S; and Bausch & Lomb stereo zoom with 0.3x, 0.5x, 0.75x, and 1.5x lenses. Jacketed in crush- and kink-resistant PVC monocoil sheathing.

41500-70

Description	Dimensions	Cat. no.	Price
Single	18"L (45.7 cm)	GY-41500-10	
Dual	18"L (45.7 cm)	GY-41500-00	
Ring	36"L x 3 3/16"OD x 2 5/8"ID (91 x 8.1 x 6.7 cm)	GY-41500-70	

3. Optional Lens Assembly for light pipes 41500-10 and -00

GY-41500-60 **Optional lens assembly**

Cole-Parmer® Microscopy Fiber Optic Illuminators

Use with existing microscope

– Low profile design fits into tight spaces
– Complete 0 to 100% light intensity control

These high-performance illuminators deliver 400,000 footcandles of high-intensity cold light. Minimal light leakage makes these illuminators ideal for your photosensitive applications.

Audible noise and vibration is minimal, convenient side door makes changing lamps fast and easy, and light pipes fit securely without need for adapters.

What's included: a 150-watt quartz halogen bulb and 6-ft (1.8-m) power cord with US standard plug (230 VAC models have European plug).

Wattage	Illuminator dimensions	Power (50/60 Hz)	Catalog number	Price
Illuminator only (order light pipe separately at right)				
150 watts	6"W x 5 3/8"H x 8 1/2"D (15.2 x 13.7 x 21.6 cm)	115 VAC	GY-41723-00	
		230 VAC	GY-41723-05	
Illuminator with single gooseneck light pipe (20"L) and one focusing lens				
150 watts	6"W x 5 3/8"H x 8 1/2"D (15.2 x 13.7 x 21.6 cm)	115 VAC	GY-41723-20	
		230 VAC	GY-41723-25	
Illuminator with dual gooseneck light pipes (23"L) and two focusing lenses				
150 watts	6"W x 5 3/8"H x 8 1/2"D (15.2 x 13.7 x 21.6 cm)	115 VAC	GY-41723-30	
		230 VAC	GY-41723-35	

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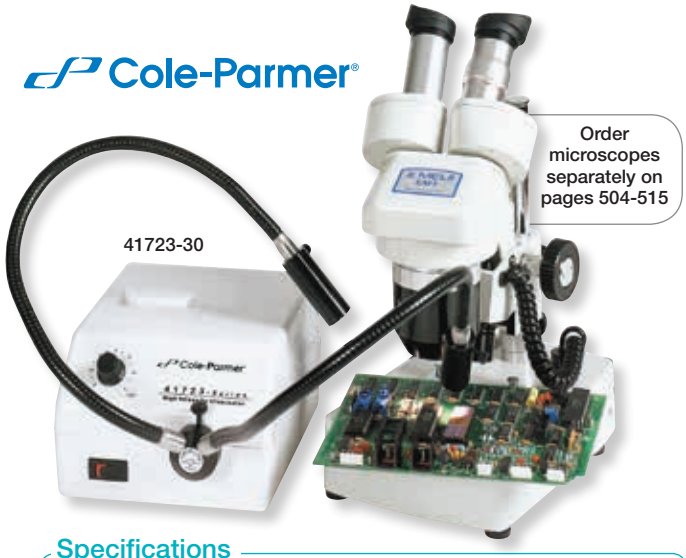


Order microscopes separately on pages 504-515

Specifications

Lamp intensity: 40,000 footcandles at 3" (7.6 cm)
Lamp color temperature: 3250 K
Bulb life: 200 hours at high setting

Accessories

GY-41720-75 **Single self-supporting light pipe**
GY-41720-65 **Dual self-supporting light pipe**

Cole-Parmer® LED Fiber Optic Illuminator

Save energy while getting maximum output

– LED bulb provides energy efficiency

– Small footprint easily fits on your benchtop

Designed for general microscopy, assembly illumination, forensics, machine vision, and boroscope applications. High-power white LEDs provide consistent color temperature, higher light output, and longer life than conventional 150-watt fiber optic illuminator bulbs. Easily adjust the light output using the 15-step intensity control. Illuminator is available as a light source only, or with gooseneck light pipe or ring lights.

What's included: fiber optic light pipe adapter, power converter, and power cord (see table for cord type).

41723-54

Specifications

Lamp color temperature: 6000 K **Light output:** 780 lumens **Bulb life:** 25,000 hours

Description	Illuminator dimensions (W x H x D)	Power	Power cord included	Catalog number	Price
LED fiber optic illuminator	3⅞" x 5⅛" x 7" (9.9 x 13 x 17.8 cm)	100 to 240 VAC, 50/60 Hz	115 VAC, US	GY-41723-50	
			230 VAC, European	GY-41723-51	
LED fiber optic illuminator with single gooseneck light pipe	3⅞" x 5⅛" x 7" (9.9 x 13 x 17.8 cm)	100 to 240 VAC, 50/60 Hz	115 VAC, US	GY-41723-52	
			230 VAC, European	GY-41723-53	
LED fiber optic illuminator with dual gooseneck light pipe	3⅞" x 5⅛" x 7" (9.9 x 13 x 17.8 cm)	100 to 240 VAC, 50/60 Hz	115 VAC, US	GY-41723-54	
			230 VAC, European	GY-41723-55	
LED fiber optic illuminator with 60-mm ring light pipe	3⅞" x 5⅛" x 7" (9.9 x 13 x 17.8 cm)	100 to 240 VAC, 50/60 Hz	115 VAC, US	GY-41723-56	
			230 VAC, European	GY-41723-57	
LED fiber optic illuminator with 66-mm ring light pipe	3⅞" x 5⅛" x 7" (9.9 x 13 x 17.8 cm)	100 to 240 VAC, 50/60 Hz	115 VAC, US	GY-41723-58	
			230 VAC, European	GY-41723-59	

DC-Regulated Fiber Optic Illuminator System

Avoid problems due to variation in input voltage

– Great for video microscopy and machine vision applications

1. Illuminator

The internal power supply to the halogen bulb is stabilized to 0.5%, eliminating problems due to variation in input line voltages. Front-panel dial controls light output from 0 to 100%. Remotely control the light output using a 0 to 5 VDC signal. Stackable housing is heavy-duty steel.

What's included: a 150-watt bulb and 6-ft (1.8-m) power cord with three-prong plug.

Specifications

Lamp color temperature: 3200 K **Bulb life:** 200 hours at high setting

Wattage	Illuminator dimensions	Power	Catalog number	Price
150 watts	9½"L x 7¼"W x 4⅝"H (24.1 x 18.4 x 11.7 cm)	100 to 240 VAC, 50/60 Hz	GY-41720-40	

REQUIRED System Components

1) **Illuminator**
2) **Light pipe**—select a single or dual ring light pipe.
3) **Adapter**

2. Light Pipes

Select single or dual light pipes below. Flexible gooseneck is constructed of glass fibers sheathed in a steel monocoil.

Description	Diameter	Length	Catalog number	Price
Single gooseneck light pipe	0.58"	20"	GY-41720-70	
Dual gooseneck light pipe	0.58"	23"	GY-41720-60	

3. Adapters

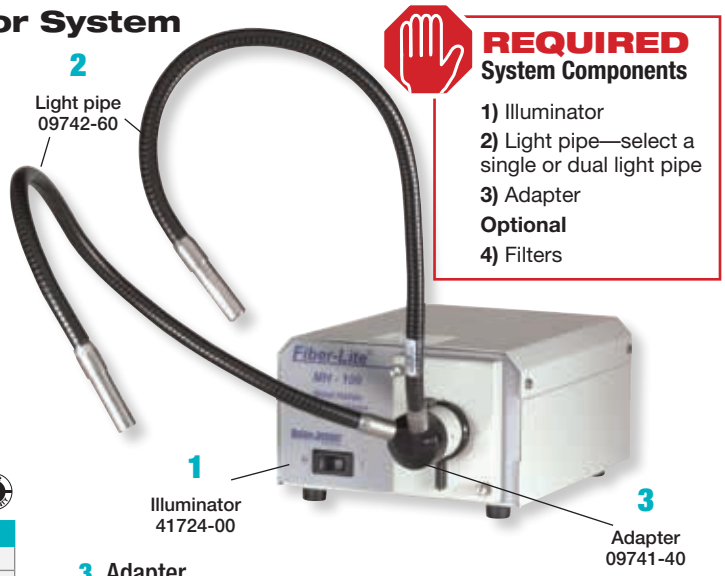
GY-09741-40 **Illuminator adapter.** Required for single light pipe 41720-70

GY-09741-41 **Illuminator adapter.** Required for dual light pipe 41720-60

High-Output Fiber Optic Illuminator System

Reduce eyestrain

– 2x the light output of quartz halogen illuminators
– 0 to 100% intensity control with manual iris



REQUIRED
System Components
1) Illuminator
2) Light pipe—select a single or dual light pipe
3) Adapter
Optional
4) Filters

1. Illuminator

These illuminators use a metal halide bulb to provide brilliant white light with true color representation and balance. Adjustment of the manual iris controls light intensity.

What's included: filter holder and 7 1/2-ft (2.3-m) long power cord.

Specifications
Lamp intensity: 6,500 footcandles at 6" (15.2 cm)
Lamp color temperature: 5500 to 6500 K
Bulb life: 3000 hours (nominal to 70% initial intensity)

Wattage	Illuminator dimensions	Power	Catalog number	Price
100	7 1/4"W x 4 1/2"H x 9 1/2"D (18.4 x 11.4 x 24.1 cm)	115 VAC, 50/60 Hz	GY-41724-00	
		230 VAC, 50/60 Hz	GY-41724-05	

2. Light Pipes

Select single or dual self-supporting light pipes below. Light pipes require no stands or additional support.

Description	Diameter	Length	Catalog number	Price
Single self-supporting light pipe	0.56"	20" (51 cm)	GY-09742-70	
Dual self-supporting light pipe	0.46"	23" (58 cm)	GY-09742-60	

3. Adapter

GY-09741-40 **Illuminator adapter.** Required for single and dual light pipes 09742-70 and 09742-60

4. Filters

Description	Catalog number	Price
Green filter	GY-41724-54	
Red filter	GY-41724-56	
Yellow filter	GY-41724-58	
Complete kit (blue, green, IR, red, yellow)	GY-41724-60	

Cole-Parmer® Economical Fiber Optic Illuminator

Fits even in tight spaces

– Easy access side door for bulb replacement
– 23" L (58.4 cm) gooseneck light pipe and focusing lens—ideal for most inspection applications
– 10,000 footcandles of cold, intense illumination without noise or vibration

What's included: light pipe, focusing lens, 30-watt lamp bulb, and a 5-ft (1.5-m) three-wire cord with three-prong grounded plug.

Specifications
Lamp intensity: 10,000 footcandles at 3" (7.6 cm)
Lamp color temperature: 3100 K
Bulb life: 200 hours

Wattage	Illuminator dimensions	Light pipe dimensions	Power	Catalog number	Price
30 watts	6"W x 5 5/16"H x 8 1/2"D (15.2 x 13.5 x 21.6 cm)	23"L x 3/16" dia (58.4 x 0.5 cm)	115 VAC, 60 Hz	GY-41721-00	
			230 VAC, 50 Hz	GY-41721-05	

Clip-On Illuminators

Get illumination almost anywhere

– Plastic ring guard provides safe fingertip adjustment
– Clamp onto any horizontal, vertical, or round surface edge up to 3/4" dia.

Intensity control dial lets you precisely adjust light levels. Miniature quartz halogen bulb (included) delivers cool shadowless illumination (3000 K color temperature). Order optional infrared heat shield 09809-96 for close-up work on heat-sensitive samples.

What's included: remote power supply, and halogen bulb(s).

Lamp intensity	Cord length	Power	Single-head illuminators		Dual-head illuminators	
			Catalog number	Price	Catalog number	Price
12,000 footcandles at 2" (5.1 cm)	5 ft (1.5 m)	120 VAC, 50/60 Hz	GY-41600-00		GY-41600-10	

GY-41600-50 **Replacement bulb,** 20 W
GY-09809-96 **Infrared heat shield** for use with 41600-00 and -10