

# Flash Photolysis System

HIGH POWER FLASH LAMP FROM CAIRN RESEARCH LTD COMBINED WITH THE ULTRA STABLE PHOTOFLUOR® II FLUORESCENCE ILLUMINATION SYSTEM



## UNCAGING STUDIES

Neurotransmitter studies via caged carbamylcholine carbachol,  $\gamma$ -aminobutyric acid and L-glutamic acid

Manipulation of intracellular calcium levels via caged  $\text{Ca}^{2+}$  chelators

RNA interference studies via caged siRNAs

Study of signal transduction pathways with caged nucleotides

Study of second messenger signaling cascades with caged inositol 1,4,5-triphosphate and/or caged cADP-ribose

## PHOTOACTIVATION/PHOTOCONVERSION OF FLUORESCENT PROTEINS

PA-GFP

Dronpa

tdEOS

## Key Features

Variable charge capacitance of the flash lamp allows for fine control of the flash/photoactivation light intensity

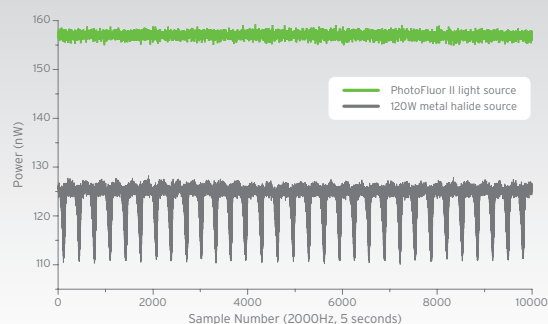
Simultaneous flash and fluorescence illumination via dual illumination port adapter

Ultra stable output of the PhotoFluor II enables quantitative imaging of the dimmest samples

Optically isolated input and output flash triggers enable tight integration with your experimental protocols

Ability to couple to all major brands of microscopes

## SHORT TERM STABILITY OF PHOTOFLUOR II



## PhotoFluor II

### LAMP

200 W metal halide

Output = 20W with 5mm LLG and 1W with 3 mm LLG

### OUTPUT STABILITY

Intensity variations typically less than 0.3% output power

### 5-POSITION FILTER WHEEL

Motorized operation

Comes standard with ND screens, can accept heat tolerant excitation filters

### SERIAL CONNECTION

Computer interface with provided or easily customizable software

ASCII or binary commands



## Adapter

Dual-illumination port adapter enable simultaneous flash and fluorescence imaging. The exchangeable filter cube within the adapter allows for changing experimental configurations.

## Flash Lamp

### LAMP

Proprietary high pressure xenon arc lamp design

Flash duration typically < 1msec

Peak output 320J @ 4,000uF and 400V

Proprietary balanced igniter circuit for high flash current and reduced interference risk

### CONTROLLER

Charge capacitance switchable from 20uF to 4,000uF

Charge voltage continuously variable up to 400V

Recharge rate 0.3s for CV (uF x V) up to 80,000

Optically isolated trigger input and output connections

Each component is also available separately.  
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