

Powerful Pulsed Light Platform Expands and Profitably Builds Your Practice

# NannoLight™

**MP50** Multi-PIP Intense Pulsed Light and Laser System

**POWER  
PERFORMANCE  
VERSATILITY**



## **NEW** Nannolight MP50 Innovations Include

- ✓ **Powerful Clinical Fluence** (50 J/cm<sup>2</sup>) for proven efficacious results
- ✓ **HP5 High Powered 40,000 Flash Handpiece** includes five (5) different wavelength cut-off filters for multiple indications and skin types
- ✓ **Extensive Multi-Pulse Trains** provide treatment options for all skin types (I-V)
- ✓ **FNIR™ (Full Spectrum Near Infrared) Technology** offers proprietary NIR wavelengths (750 - 1400 nm) to enhance all treatment results with no downtime
- ✓ **Expandable Platform** for Both Intense Pulsed Light and Laser applications with optional upgraded handpieces
- ✓ **Advanced “Top-Hat” Shaped Pulses** deliver even energy distribution



# NannoLight<sup>™</sup> MP50

Multi-PIP Intense Pulsed Light and Laser System

## The All-New NannoLight MP50 Offers Several New Innovative and Advanced Technology Enhancements

The NannoLight MP50 powerful and expandable technology platform is capable of powering multiple indication handpiece sets. The new MP50 system provides true clinical fluence up to 50 J/cm<sup>2</sup>. The extra fluence and high power enables you to safely and effectively perform an extensive range of FDA cleared aesthetic procedures. The new HP5 handpiece set also delivers a proprietary full-spectrum of FNIR<sup>™</sup> (Near-Infrared Wavelengths) (750 - 1400 nm) wavelengths in addition to the precise spectral bands provided by the five (5) included cut-off filters.

The proprietary NannoLight MP50 FNIR<sup>™</sup> wavelengths are optimal for photofacial skin rejuvenation treatments due to their ability to precisely stimulate fibroblasts and collagen formation throughout the entire depth of the dermis. Each FNIR wavelength delivers light to a different region and depth of the dermis. Multiple studies have shown significant laser-induced neocollagenesis in skin treated with these FNIR wavelengths.

NannoLight MP50's new digital technology also provides sustainable long pulse trains and variable multi-pulse capabilities to enable you to treat a variety of indications and difficult to treat skin types. The NannoLight MP50 includes the HP5 "five-in-one" handpiece.

## Multiple Indications with a Single Platform

Superior by design, the new NannoLight MP50 Multi-PIP intense pulsed light and laser system offers several innovative and advanced technology enhancements.

- Multiple sapphire cut-off filters with a single handpiece
- Integrated contact cooling
- Energy fluence up to 50 J/cm<sup>2</sup>
  - Longer lasting (40,000 flash) flashlamp life
  - Extensive multi-pulse train options

Allows you to safely and effectively treat the following FDA-cleared indications and more.

*Permanent Hair Reduction*

*Photofacial*

*Acne Clearance*

*Vascular Lesions*

*-Spider Veins*

*-Telangiectasia*

*-Rosacea*

*Pigmented Lesions*

*-Solar Lentigos and Lentigines*

# NannoLight™<sub>MP50</sub>

Multi-PIP Intense Pulsed Light and Laser System

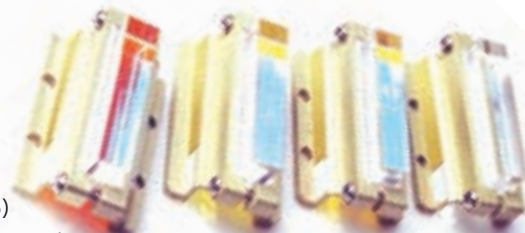
## The Fastest Growing Segment of Healthcare Today

The market for aesthetic medical services is exploding in popularity and growing by double digits each year. The demand by the public for these services is at an all time high. According to Medical Insight, Inc., it is estimated that globally over 53 million light based medical aesthetic procedures will be performed in 2008. When combined with other non-surgical medical aesthetic procedures, the market delivers nearly 100 million procedures annually. This represents over 20 billion dollars in physician fees.

## Versatility with Specialized “Quick-Change” Sapphire Crystal Filters

Every NannoLight system comes standard with five (5) specialized sapphire crystal filters. Sapphire is the hardest natural substance next to diamond and is the highest quality of all optical materials. NannoLight's sapphire crystal filters are highly resistant to scratching or abrasion and feature tremendous clarity for maximum light passage. Each filter provides the optimal wavelength spectrum for the desired clinical indication. After selecting the appropriate sapphire crystal filter, simply select the appropriate settings displayed on the LCD touch screen and you are ready to begin a treatment.

Changing from one sapphire crystal filter to another is quick and easy. Simply remove the filter cover and replace one filter with another. The system is now ready for a completely different indication in less than five seconds. A 410 - 1400 nm (acne clearance) filter is also available.





## Top Hat Spectrum Energy Profile

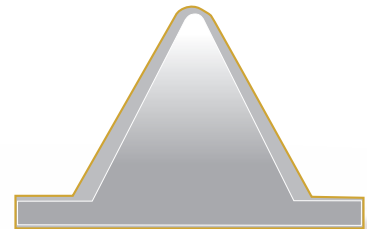
The advanced NannoLight MP50 technology utilizes digitally controlled, solid-state electronics to provide an improved “Top Hat” spectrum energy profile. A “Top Hat” spectrum profile eliminates the inefficient peaks and spikes characteristic of traditional Gaussian pulsed light systems or new systems with excessively rapid pulse repetition rates. The “Top Hat” spectrum profile consistently maintains the desired energy fluence during the entire pulse duration discharge period, resulting in effective, predictable and safe treatment results.

NannoLight MP50's solid-state electronics include a specially engineered, proprietary reserve capacitor to evenly store and re-charge itself, but only partially discharge during each pulse (or sub-pulse). The reserve capacitor retains sufficient energy reserve to evenly discharge the current to the flash lamp during the pulse duration period and all successive pulse or (sub-pulse) duration periods. The reserve capacitor system and evenly modulated current discharge capability delivers a constant, “Top Hat” spectrum pulse profile.

Many other intense pulsed light systems use “free discharge” electronics that allow rapid pulse repetition rates in an effort to shorten treatment times. The undesirable energy peak characteristics of these systems deliver treatment results that are frequently irregular, spotty and even harmful.



NannoLight “Top Hat” Spectrum Profile



Traditional Gaussian Spectrum Profile

## NannoLight Handpiece Proprietary Gold Triple Filtration System

Second Wavelength Selective  
Sapphire Outer Crystal Filter

Inner Sapphire Crystal Filter

The NannoLight MP50 standard HP5 handpiece incorporates a highly effective “triple-light filtration” system. The system has been designed to remove undesirable UV light waves from each light pulse while maximizing the desired wavelength spectrum for the indication treated. The proprietary filtration system is a combination of a 24K gold-lined reflector cavity, a fixed base filter and the selectable (detachable) sapphire crystal cut-off filter of choice. The proprietary gold-lined reflector cavity is designed to absorb over 90% of the undesirable UV light waves generated by the flash lamp. The reflector cavity system also reflects the desirable wavelength light energy back to the tissue for maximum fluence to the treatment area. This phenomenon, known as light energy recycling, provides a reduction of wasted light while it increases NannoLight MP50's energy fluence.



Gold-Coated Reflector Cavity

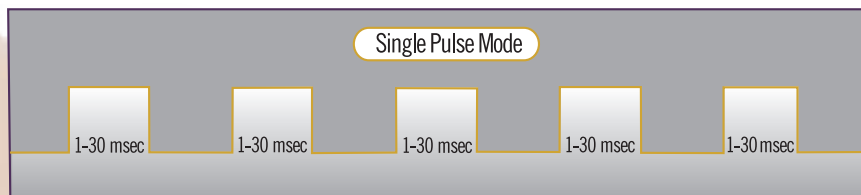
## Variable Pulsation Modes

NannoLight MP50 offers a choice of eight (8) different pulsation modes to effectively treat the most popular and profitable clinical indications. The Single Pulsation Mode provides a single pulse with an optimal pulse duration range (1-30 msec) and a fixed delay between pulses (3-4 msec).

The Multi-PIP (pulse-in-pulse) Variable Pulsation Mode offers seven (7) variable delivery options. The Multi-PIP Variable Pulsation Mode provides light pulses to the skin in slow or rapid succession to effectively treat the desired target without causing collateral damage. The delay between Multi-PIPs can be adjusted to allow the epidermis and small superficial vessels to cool while thermal energy accumulates in the deeper, larger vessels or hair follicles. The recommended duration of pulses and rest periods is based on the respective thermal relaxation times of the target chromophore. The comprehensive Multi-PIP feature allows many treatment options and provides improved results with difficult cases. Darker skin types can be safely treated while maximizing optimal energy settings for the highest efficacy.

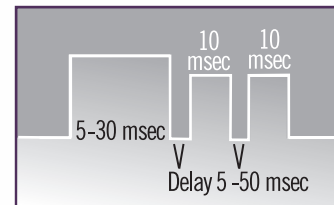
**Single Pulsation:** *(Generally recommended where higher energy is required [i.e. photofacial, hair reduction with lighter skin tones]).*

- a. Pulse width: 1-30 ms.
- b. Rep rate: 2.0 seconds between pulses.



**Multi-Pulse Mode (Program M1):** *(Variable/Fixed Pulse Train)*

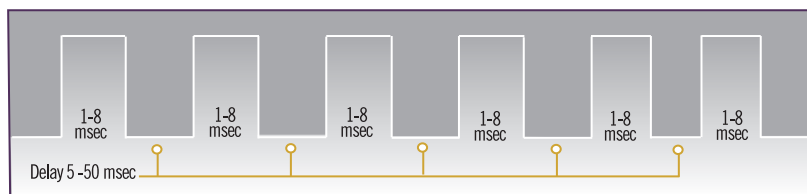
- a. PIP Mode-2: First pulse can be adjusted from 5 to 30 ms in duration. Second pulse is fixed duration (10 ms). Delay (rest time) can be set between 5 and 50 ms. Provides 2 pulses "stacked" within a pulse train.
- b. PIP Mode-3: First pulse can be adjusted from 5 to 30 ms in duration. Second and third pulses are of fixed duration (10 ms). The duration of delay (rest time) can be set between 5 and 50 ms. Provides 3 pulses within a pulse train.
- c. Rep rate: 2.0 seconds between pulses.



Multi-PIP Variable Pulsation Multi (M1) Pulse Mode (3 PIP)

**Multi-Pulse Mode (Program M2):** *(Variable/Variable for Short Sub-Pulses and Long Pulse Train)*

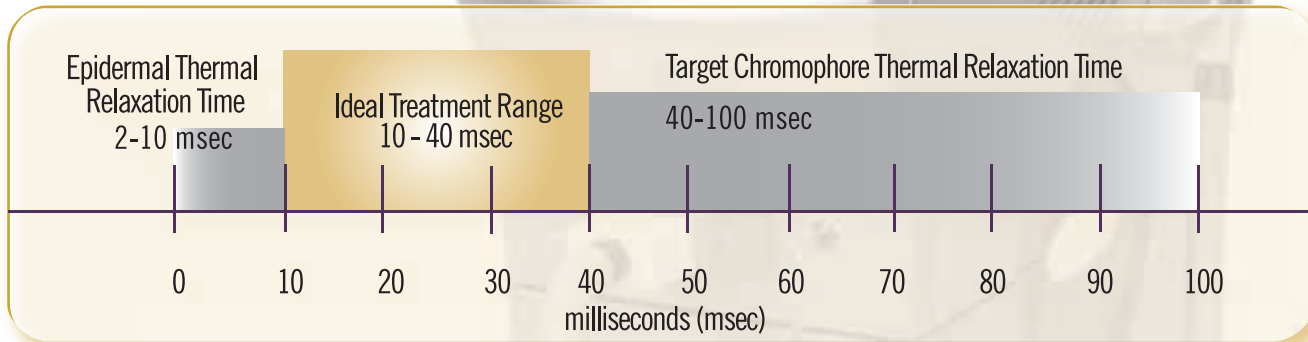
- a. PIP Mode-2 - 6: Number of sub-pulses (PIPs) can be selected from 2 to 6 sub-pulses. Pulses can be "stacked" from 2 to 6.
- b. The pulse duration of each PIP can be selected (from 1 to 8 ms).
- c. Pulse duration delay (rest time) between each sub-pulse (PIP) can be set between 5 and 50 ms.
- d. Rep Rate: 2.0 seconds between pulses.



Multi-PIP Variable Pulsation Multi (M2) Pulse Mode (6 PIP)

## NannoLight MP50 Pulse Duration Range

NannoLight offers the most pulsation choices and wavelength filters to enable you to effectively treat almost every patient and indication. The scientific basis for NannoLight treatments is “selective photothermolysis”. This process occurs when a particular light energy wavelength is delivered to the skin for maximum absorption of light energy by a target chromophore while leaving the surrounding tissue unaffected. NannoLight’s variety of pulse duration choices (1-30 msec) also allows you to select a pulse duration that will provide the ideal outcome for the specific chromophore (i.e. melanin or oxyhemoglobin) being targeted.



## NannoLight Full-Spectrum Wavelength Selections (410 nm - 1400 nm)

Indication	Target Chromophore	Wavelength Range
Photo Facial (Pigmented Lesions and Vascular Anomalies)	Melanin Oxyhemoglobin	560 - 1400 nm
Pigmented Lesions, Sun Damage	Melanin	530 - 1400 nm
Vascular Lesions	Oxyhemoglobin	585 - 1400 nm
Permanent Hair Reduction Permanent Hair Reduction (Skin Type IV-V)	Melanin Melanin	640 - 1400 nm 690 - 1400 nm
* Acne	Porphyrins	410 - 1400 nm
<i>*optional cut-off filters required.</i>		

ULTRAVIOLET

VISIBLE SPECTRUM

INFRARED

• WAVELENGTH - NANOMETERS •

## Permanent Hair Reduction

Each year, more than \$10 billion is spent by the public to remove unwanted or excessive hair. Until the introduction of light based methods, the preferred ways to remove hair have been shaving, waxing and electrolysis. NannoLight™ MP50 allows you to capitalize on this growing and profitable market by providing a cost effective, permanent solution while outperforming most other competitive systems. NannoLight MP50 will make aesthetic procedures more financially profitable and accessible than ever before.

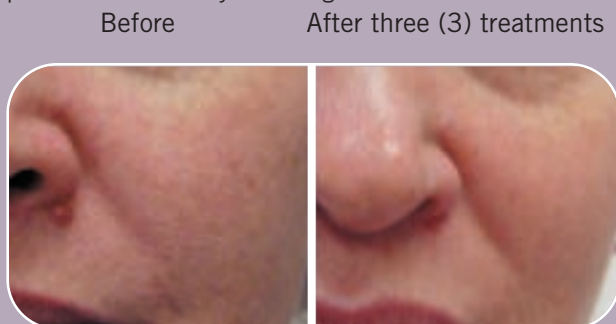
Utilizing a precise spectrum range of powerful intense pulsed light, NannoLight delivers the optimal combination of light wavelength and energy fluence. Hair follicles are targeted and disabled while promoting thermal relaxation and leaving adjacent tissues unaffected. This process is known as selective photothermolysis.



Photos courtesy of Dr. T. Rojy, MD. - Jacksonville, NC

## Acne Clearance

According to the National Institute of Health, 17 million people in the USA alone are afflicted with acne vulgaris. Over 80% of individuals, age 14-30, will suffer from acne regardless of gender, skin type or geography. Over 25% will have permanent scars as a result. NannoLight uniquely delivers a deeply penetrating combination of blue-green-yellow-red wavelengths to destroy P. acnes bacteria while, at the same time, reducing inflammation associated with the acne condition. NannoLight provides excellent results and is cleared for treatment of mild to moderate inflammatory and pustular inflammatory acne vulgaris.

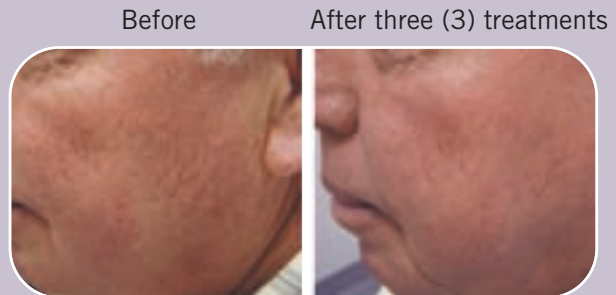


Photos courtesy of Dr. T. Rojy, MD. - Jacksonville, NC

## Photofacial

### Vascular Anomalies and Pigmented Lesions

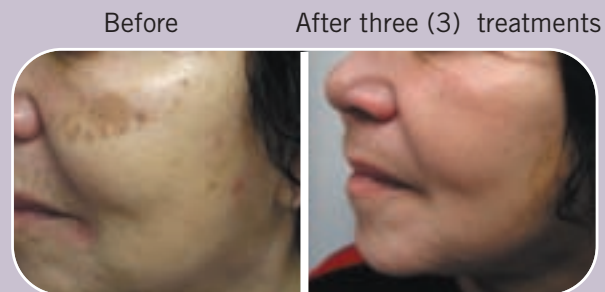
As a result of sun exposure, the aging process and lifestyle choices, skin degrades and visible imperfections develop. NannoLight selectively targets melanin and oxyhemoglobin by using the specific sapphire crystal filter for the desired indication.



Photos courtesy of Dr. T. Rojy, MD. - Jacksonville, NC

Vascular anomalies manifest themselves in many forms. Spider veins (telangiectasias) are the most common vascular lesions and are often found on the face.

Pigmented lesions occur when an abundance of melanocytes are found in the skin. Freckles (ephelides), brown spots (lentigines) and moles (nevi) form when dark pigment multiplies.



Photos courtesy of Dr. A. El-Attar, MD. - Mercerville, NJ

As the intense pulsed light is selectively absorbed by the target chromophore, the photothermal process that results coagulates the melanin and causes the lesion to eventually slough off.



Photos courtesy of Dr. A. El-Attar, MD. - Mercerville, NJ



# NannoLight<sup>™</sup> MP50

Multi-PIP Intense Pulsed Light and Laser System



## The Sybaritic® Education Advantage

We are an education company. Our staff of professional aesthetic and medical educators will provide comprehensive training at our institute in Minneapolis or at your facility. We conduct weekly and monthly seminars and numerous clinical presentations. Regardless of whether your needs are beginning or advanced, if you would like hands-on experience, new treatment protocols or tips on business operations or marketing, we have the knowledge and experience to help you achieve great patient results and business success.

## Technical Specifications

**Light Source:** Pulsed light, full visible spectrum and FNIR<sup>™</sup>

**Pulse Mode:** Single Pulse or Variable Multi-Pulse Mode

**Pulse Width (Duration):** Variable, 1 - 30 msec

**Variable Pulse Programs:** Eight (8) Different Options

**Pulses Per Train (Pulse-In-Pulse):** 2 - 6

**Delay Between Pulses:** 5 - 50 msec

**Pulse Train Length:** 7 - 298 msec

**Pulse Rate (Speed):** Up to .5 Hz

**Flashlamp:** Dense Xenon (+40,000 Shots guaranteed)

**Sapphire Crystal Filters:** Five (5) Sapphire Crystal Filters included with basic system (8 mm x 40 mm) (Wavelength-specific filters, 99% light spectrum clarity with select reduction filtration)

**Optional Filters:** Acne clearance filter (410 - 1400 nm)

**Spectrum Range:** Standard 410 nm - 1400 nm

**FNIR:** Proprietary full spectrum near infrared wavelengths

**Treatment Spot Sizes:** Standard 8 mm x 40 mm (320 mm<sup>2</sup>)

**Energy Fluence Range:** 2.8 to 50 Joules/cm<sup>2</sup>

**Optical Cavity:** Gold-lined, water cooled

**Weight:** 63 lbs/29 kg (portable, table-top)

**Matching Intergrated-Cart Weight:** 41 lbs/18.6 kg

**Sub-Zero Chilling System:** Adjustable, ambient to -5° C/23° F

**Power Supply:** 220 v (10 A, 50/60 Hz)

**Warranty:** One year standard, extended warranty available.



## Patient Comfort-Sub-Zero Epidermal Cooling

The NannoLight MP50 system features an adjustable epidermal cooling and chilling function for its sapphire crystal filters. The proprietary cooling function allows the system to operate safely at higher energy fluences. This boosts treatment efficacy, allowing you to treat darker skin types and provide greater patient comfort. When activated, the sub-zero feature thoroughly and precisely chills the filter to temperatures as low as -5° C. In turn, the chilled filter cools the epidermis to help make treatments more comfortable and prevent adjacent thermal damage to the surrounding tissues.

Call today to learn how the all new Nannolight MP50 expands and profitably builds your practice. Ask your Sybaritic, Inc. representative about the options available.

## Contact Information

SYBARITIC INC. Global Aesthetic Solutions  
9220 James Avenue South Minneapolis, Minnesota 55431 • [www.sybaritic.com](http://www.sybaritic.com)

Toll Free 800.445.8418 • Tel 952.888.8282 • Fax 952.888.8887 • [info@sybaritic.com](mailto:info@sybaritic.com)

© 2008 Sybaritic, Inc. Mpls, MN 206417 Rev. 801U NL50.1.801.1

**SYBARITIC**<sup>®</sup>  
Global Aesthetic Solutions