

NannoLight. The most comprehensive Intense Pulsed Light system for permanent hair reduction, photorejuvenation, acne clearance, pigmented lesions and vascular anomalies including telangiectasia, rosacea and spider veins.

NANNOLIGHT

Sub-zero multi-PIP Intense Pulsed Light



Aesthetics... The biggest medical business of the 21st century

The market for aesthetic medical services is immense and growing every year. Public interest and demand for these services are at an all time high. Over 48 million aesthetic procedures were performed in the United States in 2005 and, by 2009, that number is expected to surpass 75 million. Over half of these services were performed with non-surgical, non-invasive light therapy or laser systems.

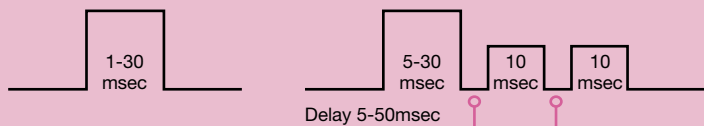
Multiple indications with a single platform!

NannoLight Sub-zero Multi-PIP Intense Pulsed Light system is the most comprehensive and versatile intense pulsed light platform available today.

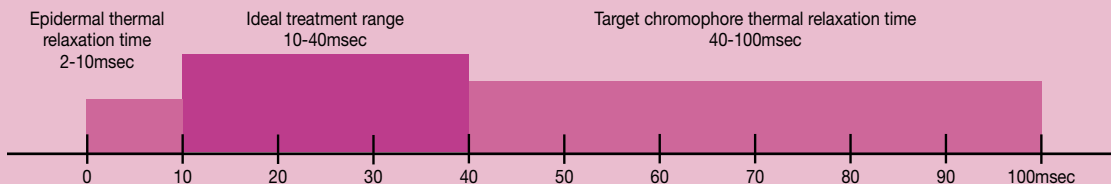
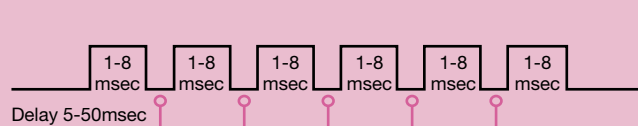
By definition, lasers only utilize a single wavelength of light. Early adopters of light-based treatments had to purchase multiple laser systems in order to treat different indications. Now, NannoLight allows you to offer your clients what used to require six (6) different lasers. NannoLight Intense Pulsed Light system utilizes seven (7) different, easily interchangeable, cut-off filters to modify the emitted broadband light spectrum, making NannoLight as flexible as it is efficacious. NannoLight also offers the widest variety of choices for treatment parameters including adjustable pulse duration, pulse train options and built-in epidermal cooling. This unique combination of NannoLight features allows you to provide safe and effective treatments without the discomfort associated with many lasers.

Eight variable pulsation modes

Single Pulse Mode Multi-Pulse Mode (M1) 3 PIP



Multi-Pulse Mode (M2) 6 PIP



Technology

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 (1-30msec) also allows you to select a pulse duration that will provide the ideal outcome for the specific chromophore (i.e. melanin or oxyhaemoglobin) being targeted.

Variable Pulsation Modes (multi Pulse-In-Pulse)

NannoLight 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 (3.3 seconds).

The Multi-PIP (pulse-in-pulse) technology offers seven (7) variable delivery options. The Multi-PIP Modes provide 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 Pulse Mode

Generally recommended where higher energy is required (i.e. hair reduction on lighter skin tones).

- Pulse width: 1-30 ms
- Repetition rate: 3.3 seconds between pulses.

Multi-Pulse Mode (M1)

Variable/Fixed Pulse Train

- 2 PIP: First pulse can be adjusted from 5 to 30ms in duration. Second pulse is fixed duration (10ms). Delay (rest time) can be set between 5 and 50ms. Provides 2 pulses within a pulse train.
- 3 PIP: First pulse can be adjusted from 5 to 30ms in duration. Second and third pulses are of fixed duration (10ms). The duration of delay (rest time) can be set between 5 and 50ms. Provides 3 pulses within a pulse train.
- Repetition rate: 3.3 seconds between pulses.

Multi-Pulse Mode (M2)

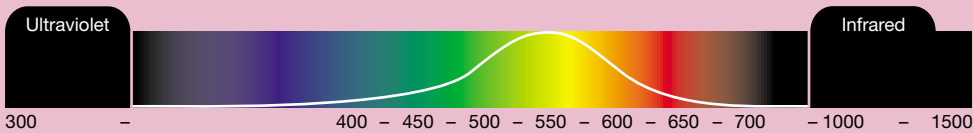
Variable/Variable for Short Sub-Pulses and Long Pulse Train

- 2-6 Mode: Number of sub-pulses (PIPs) can be selected from 2 to 6 sub-pulses.
- The pulse duration of each PIP can be selected (from 1 to 8ms).
- The duration of delay (rest time) between each sub-pulse (PIP) can be set between 5 and 50ms.
- Repetition rate: 3.3 seconds between pulses.

Quick change filters

Indication	Target chromophore	Wavelength filter
Photorejuvenation (pigmented lesions and vascular anomalies)	Melanin/Oxyhaemoglobin	560-1400nm
Pigmented lesions, sun damage	Melanin	530-1400nm
Vascular lesions	Oxyhaemoglobin	585-1400nm
Hair reduction	Melanin	640-1400nm
Hair reduction (Skin type IV-V)	Melanin	690-1400nm
Acne	Porphyryns	410-1400nm
Hair reduction (enlarged spot size for large areas)	Melanin	640-1400nm

Visible spectrum – Wavelength nanometers



Platform versatility

Specialized blue sapphire crystal filters

Every NannoLight system comes standard with six (6) specialized blue sapphire crystal filters. Blue sapphire is the hardest natural substance next to diamond and is the highest quality of all optical materials. NannoLight's blue 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 blue sapphire crystal filter, simply select the appropriate settings on the LCD touch screen and you are ready to begin a treatment.

Changing from one blue 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 treatment. An enlarged 640-1400nm quartz (40x20mm for large area hair reduction) filter is also available as an optional enhancement to your NannoLight system.

Square spectrum profile

NannoLight advanced technology utilizes digitally controlled, solid-state electronics to provide a square spectrum pulse profile. A square 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 square spectrum profile consistently maintains the desired energy fluence during the entire pulse duration discharge period, resulting in safe, effective and predictable treatment results.

NannoLight's solid-state electronics include a specially engineered, proprietary reserve capacitor to evenly store and recharge 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 flashlamp during the pulse duration period and all successive pulse or (sub-pulse) duration periods. NannoLight's reserve capacitor system and evenly modulated current discharge capability delivers a constant, square spectrum pulse profile.

Unlike NannoLight, 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 square spectrum profile



Traditional gaussian spectrum profile



Before/after permanent hair reduction

Before/after acne phototreatment

Before/after vascular lesions



Before/after solar lentigines

Before/after pigmented lesions

Clinical case studies

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 allows you to capitalize on this growing and profitable market by providing a cost effective permanent solution while outperforming most other competitive systems. NannoLight 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.

Acne Clearance

According to the National Institute of Health, 17million 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 indicated for treatment of mild to moderate inflammatory and pustular acne vulgaris.

Photorejuvenation

Vascular anomalies and pigmented lesions

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

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.

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.

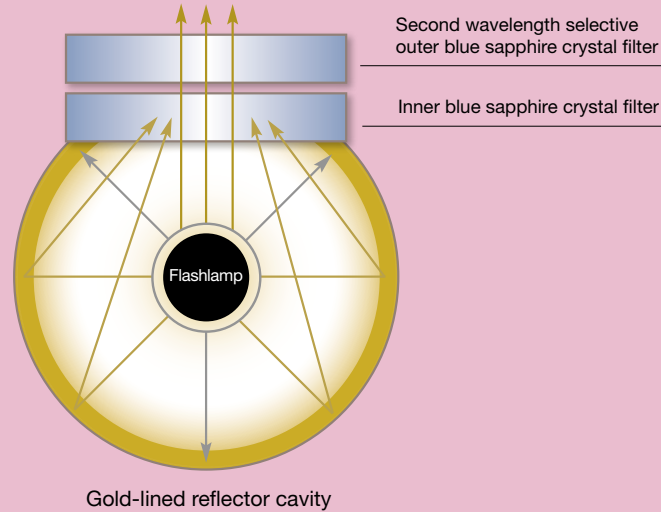
Patient comfort sub-zero epidermal cooling

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



Handpiece: Proprietary gold triple filtration system

NannoLight has a highly effective, triple-filtration system designed to remove undesirable UV lightwaves 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 and two (2) blue sapphire crystal cut-off filters. The proprietary gold-lined reflector cavity is designed to absorb 100% of the UV light waves generated by the flash lamp. The reflector cavity system also reflects the desirable higher 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's energy fluence.



Accessories

Light speed glasses

Code: 5125



IPL aid

Code: 5115



Technical Specifications

Pulse Mode	Single Pulse or Variable Multi-Pulse Mode
Pulse Width (Duration)	Variable, 1-30msec
Variable Pulse Programs	Eight (8) different options
Pulses Per Train (Pulse-In-Pulse)	2-6
Delay Between Pulses	5-50msec
Pulse Train Length	7-298msec
Pulse Rate (Speed)	.33Hz
Flashlamp	Xenon
Sapphire Crystal Filters	Six (6) Sapphire Crystal Filters included with basic system (8mm x 40mm) (Wavelength-specific filters, 99% light spectrum clarity with select reduction filtration)
Optional Filter	Enlarged (20mm x 40mm) quartz filter (640-1400nm)
Spectrum Range	410-1400nm
Treatment Spot Sizes	8mm x 40mm (320mm ²) and 20mm x 40mm (enlarged quartz filter) (800mm ²)
Energy Fluence Range	2.8 to 45Joules/cm ²
Weight	28.5kg
NannoLight Matching Station-Cart Weight	13.5kg
Sub-Zero Chilling System	Adjustable, ambient to -5°C
Power Supply	230V (10A, 50/60Hz)

☑ N 16135 Australian Register of Therapeutic Goods No. 142298
Quality USA manufacturing