



TANSES TECHNOLOGIES INC.

EXPERTS IN QUARTZ PHOTON THERAPY

# Air Duct Germ Control

## *Air Duct Units: UVC-10 & UVC-15*

Air duct mounted UVC devices reduce pathogens in HVAC systems whenever air moves through the system.

Originally invented by our manufacturing company and put to use in 1992, hospices for the critically ill, elder housing facilities, dental clinics, as well as to sick buildings with air quality issues have benefited from the disinfection capabilities of ultraviolet light.



# Air Duct Germ Control

## Easy to Install

Our standard units can be installed in any heating/cooling/ventilation system in less than 10 minutes. Simply drill a 2" diameter hole in the ventilation duct, insert the lamp until the housing is in contact with the duct, and fasten the device with 4 self tapping metal screws.

The quartz jacket will telescope to allow the installation into varying depth of duct sizes.

## How it Works

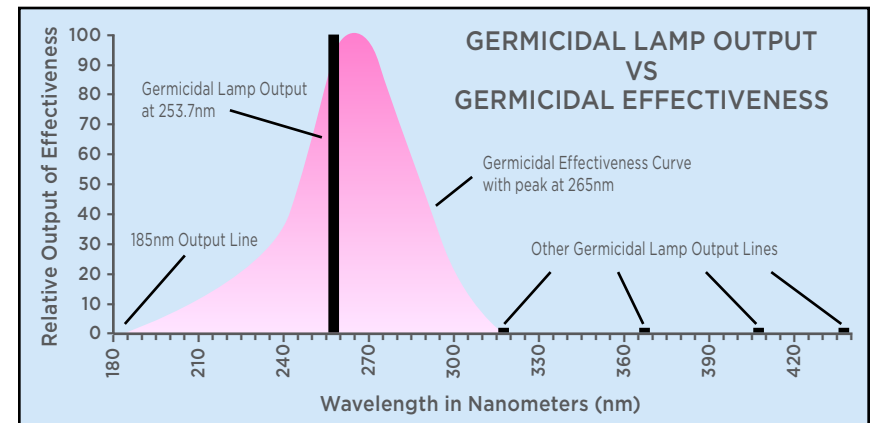
All microorganisms contain nucleic acid that react at 254 nm range resulting in the destruction of DNA. This process usually takes only a few seconds depending on the intensity of the light source. The result is dependant on the total UVC dosage and the kind of germ that needs to be deactivated.

Since 1992 we have been developing the latest purification methods for air heating and cooling systems. Our air germ control units use low wattage, high efficiency, long life ultraviolet pure quartz lamps, which has proven to be effective for air and surface disinfection of bacteria, viruses, mold spores, and protozoa.

Air flowing over the lamp surface allows the high intensity UVC rays to destroy airborne germs. Most odors are the result of the break down of organic material by bacteria, and their elimination will also remove any odor problems.



## STANDARD AIR CONDITIONING AND HEATING DUCT



# Handheld Sanitizers

*Handheld Trio: 20W, 40W and 100W Models*

High-power, handheld UVC wands of different lengths provide controlled exposure areas to protect users. Targeted for surface sanitization of corners, doors, handles, toilets, etc. These devices can also be mounted on a wirelessly-controlled outlet to be used when humans are not present. Mount from a ceiling, wall, or sitting upright vertically on its balanced supports.



# Handheld Sanitizers

## Technical Specifications

<b>Construction:</b>	Solid aluminum, with protection grid
<b>Dimensions:</b>	6.5 inches x 6.5 inches x 40 inches (UVC-85) 6.5 inches x 6.5 inches x 21 inches (UVC-40) 6.5 inches x 6.5 inches x 15 inches (UVC-20)
<b>Operation:</b>	Standing vertically, hanging, or handheld
<b>Frequency of use:</b>	As often as desired
<b>Enclosure:</b>	Stainless steel cage, with additional quartz casing
<b>Light source:</b>	Hard quartz, non-ozone type
<b>Number of lamps:</b>	1 lamp
<b>Power input:</b>	120V AC, 60Hz; 240V AC, 50Hz
<b>Amperage:</b>	1 Amp @ 120V AC (UVC-85); 0.5 Amp @ 120V AC (UVC-40); 0.25 Amp @ 120V AC (UVC-20)
<b>Power inlet:</b>	EMC filtration (hospital grade) at the power inlet
<b>Power cord:</b>	Standard, 15 Amp @ 120V AC IEC grounded with fuses
<b>Lamp Life:</b>	16,000 hours
<b>Safety devices:</b>	Entry fuses, on/off switch, delay timer



## Intended Uses

- 220nm to 280nm nominal 254 nm UVC, 360° room sanitizer.
- Effective room air pathogen reduction device.
- Surface disinfection of surfaces: walls, tables, furniture, fixtures, and high-contact items.
- Floor disinfection against viruses, bacteria, mold.
- Natural virus destruction without any resistance build-up.
- Stable enough to stand vertically on its own.
- Easy to hang from cables for large area sanitizing.
- Easy to hold by hand for sanitizing corners, crevices, and car interiors in seconds.





# Upright Room Sanitizers

*Space-500 & Space-1000: Mobile UVC*



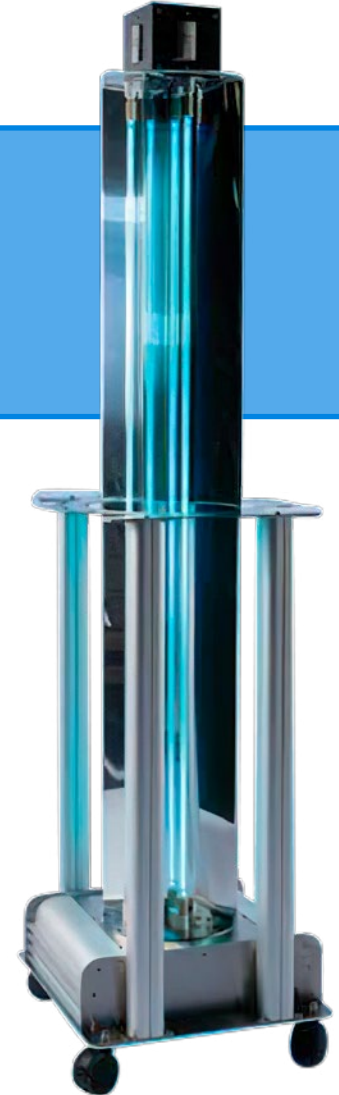
Equipped with safety measures for the security of its users buy utilizing multiple sensors that will shut-off the device in the presence of any motion. The devices all have timers to allow the user to set the delayed beginning and duration of the exposure to provide a window of safety for the operator.

## Intended Uses

- 220nm to 280nm nominal 254 nm UVC, 360° room sanitizer between patients and customers.
- Effective room air pathogen reduction device.
- Surface disinfection of equipment, walls, tables, furniture, fixtures, and high-contact items.
- Floor disinfection against viruses, bacteria, mold.
- Natural virus destruction without any resistance build-up.
- Rolls room to room on 4 casters.

**Space-500** model can sanitize any room of 20 feet by 20 feet in minutes.

**Space-1000** model has 65-inch long vertical lamps to even expose bottom sides of tables, chairs. The device is equipped with patent-pending floor UVC sanitizer that even covers the floor beneath the pedestal.



# Upright Room Sanitizers

## Technical Specifications

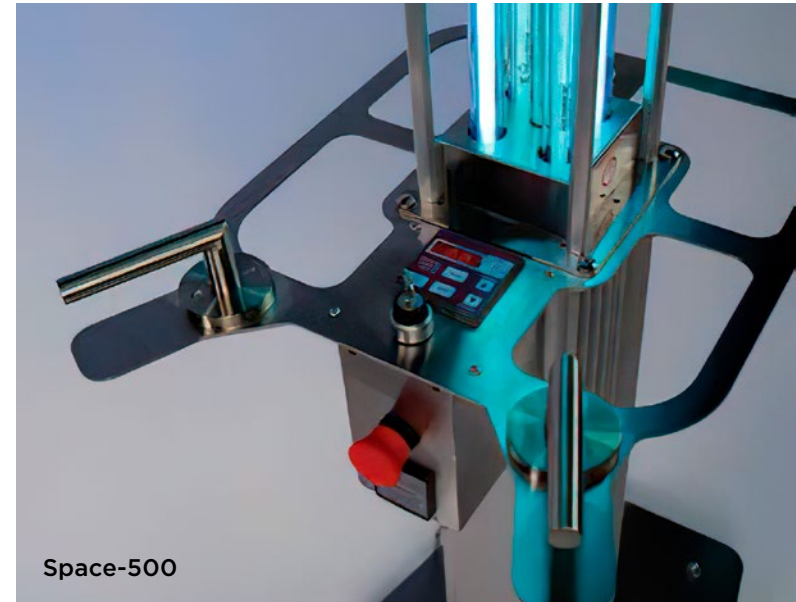
<b>Construction:</b>	Solid stainless steel
<b>Operation:</b>	Timer with delay, so operator can safely leave the room
<b>Frequency of use:</b>	As often as desired
<b>Light source:</b>	Hard quartz, non-ozone type
<b>Power input:</b>	120V AC 60Hz; 230V AC 50Hz
<b>Power inlet:</b>	EMC filtration (hospital grade) at the power inlet
<b>Power cord:</b>	Standard, 15 Amp @ 120V AC IEC grounded with fuses
<b>Lamp Life:</b>	16,000 hours
<b>Safety devices:</b>	Entry fuses, on/off switch, delay timer

### Space-500

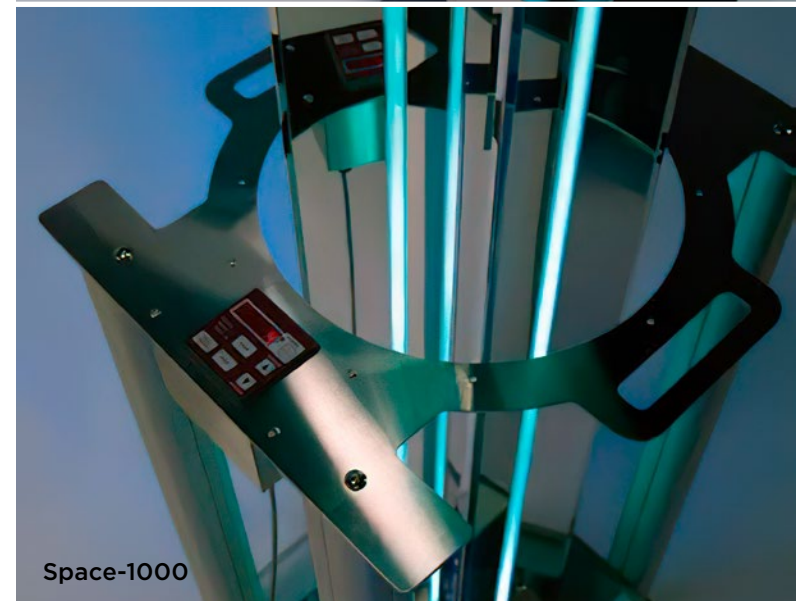
<b>Dimensions:</b>	18 inches x 24 inches x 79.5 inches high
<b>Light intensity:</b>	155 microWatt/sqcm @ 8 feet distance
<b>Influenza virus kill rate:</b>	43 seconds @ 8 feet distance, 99.9% effective
<b>Enclosure:</b>	Quartz secondary protection of lamps and lamp protection cage
<b>Number of lamps:</b>	4 lamps SHO
<b>Amperage:</b>	4.5 Amps @ 120V AC, 2.5 Amps @ 230V AC

### Space-1000

<b>Special features:</b>	Floor irradiation under equipment base via UVC lamp
<b>Dimensions:</b>	21 inches x 19 inches x 79.5 inches high
<b>Light intensity:</b>	185 microWatt/sqcm @ 8 feet distance
<b>Reflector:</b>	Super polished UV reflectors
<b>Number of lamps:</b>	5 lamps, Including under unit floor UVC (patent pending)
<b>Amperage:</b>	6.1 Amps @ 120V AC (model SHO), 3.5 Amps @ 230V AC, 50Hz
<b>Additional safety device:</b>	360° motion sensor shut off



Space-500



Space-1000

# AcneLite

## *Violet Light Therapy*

Acne vulgaris is a chronic inflammatory disorder of the pilosebaceous unit affecting more than 85% of adolescents and often persisting into later adulthood. Conventional therapy with antibiotics and retinoids yield mixed results and can be complicated by antibiotic resistance and adverse treatment profiles.





## Specifications & Features

<b>Model Name</b>	RX-1-Blue
<b>Light source power</b>	500 Watt blue light
<b>Output wavelength</b>	405nm to 415 nanometer
<b>Type of light</b>	Non-collimated
<b>Usage distance</b>	Minimum 8 inches
<b>Session time</b>	20 minutes
<b>Exposure area</b>	178 square inches
<b>Voltage</b>	120V AC or 220V AC
<b>Weight</b>	55 kg (121 lbs.)
<b>Operation</b>	Rolls on casters
<b>Lamp lifespan</b>	30,000 minutes/replacement

## Blue Light Advantages:

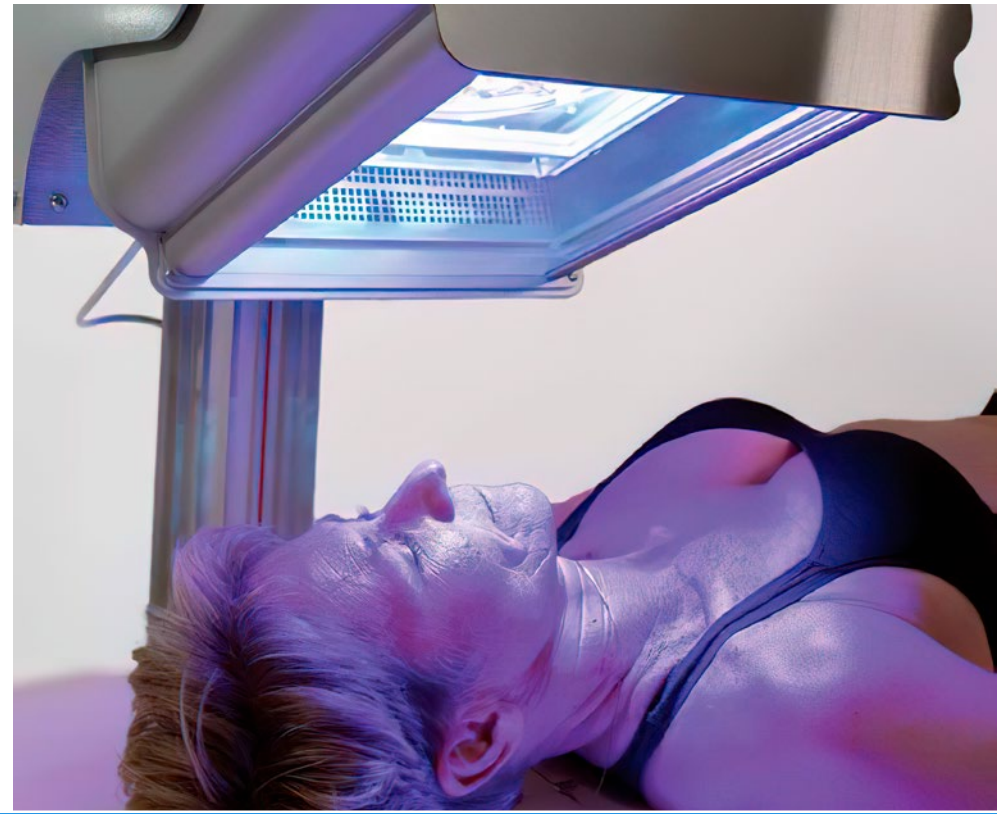
- The porphyrins within the sebaceous follicles absorb the blue light most effectively at 405 to 415 nanometer wavelengths.
- Blue light excitation leads to photo-excitation of porphyrins for subsequent release of singlet oxygen and reactive free radicals that has an antibacterial effect on acne bacteria.
- Blue light has also been shown to exert anti-inflammatory effects in keratinocytes.
- Blue light is also being used in combination with pharmacological and/or physical measures to synergize their effects and optimize the therapeutic outcome.

Acne can be a side effect of testosterone replacement therapy or of anabolic steroid use.

Acne vulgaris is sensitive to hormonal influences. Historical and physical clues that may suggest hormone-sensitive acne include onset between ages 20 and 30; worsening the week before a woman's menstrual cycle; acne lesions predominantly over the jawline and chin; and inflammatory/nodular acne lesions.

## Effective 500 Watt, Low-Level Laser Blue Light Treatment

- Non-invasive
- Non-topical
- Non-thermal
- Non-collimated
- Non-ionising
- No burning
- No scarring
- Chemical-free
- Hands-free operation
- No body contact
- No disinfection time
- No hand pieces to maintain
- Visible results after a few sessions
- Wide exposure for full face and back
- Low operating expense of 1.2 cents/minute
- Safe and effective with no complications



# Near Infrared

## Multiple Systems for Local or Full Body Exposures

The Near Infrared spectrum of light is best known for its capability to permeate deeply into the tissues of the body. Tanses has adapted its expertise in high pressure quartz lamps to create a line of medical light devices that can deliver energy into the depths of the skin that are not reached by the current line of LED alternatives.

Medical doctors appreciate the fast recovery times when used for wound healing. Pain management clinics experience quick relief for clients that suffer both acute and chronic pain.

Cosmeticians notice dramatic improvements in the texture of skin after a few short treatment sessions. Mens health clinics find that testosterone levels are greatly enhanced after just one treatment while erectile dysfunction becomes treatable without pharmaceuticals. Dental implant patients enjoy a quick recovery as the bone forms a tight solid bond to the tooth.

We are just beginning to discover the many ways Near Infrared light therapy can be used to treat a wide variety of disease.



# Near Infrared Light Therapy

## Medical Near Infrared Light Working Mechanism For The Medical Professional

Near-Infrared (NIR) polychromatic spectrum has been well studied since 1960s and have been documented through thousands of fundamental research studies to analyze the effects of NIR on tissue repair, rejuvenation and pain relief mechanisms as described in a summary below. NIR photobiomodulation therapy is a non invasive, and highly effective adjunct therapy in the field of

prevention as well as in the cellular regeneration of skin, muscle, and bone tissues.

NIR polychromatic light is emitted by a full spectrum quartz plasma arc light source for its high energy intensity and effectiveness at a distance. The exposure area covers one square foot for each light emitter.

NIR photons easily travel through gauze and moisturizing jell along with clothing, bed sheets and linens before reaching to the patients skin. Effective photobiomodulation wavelengths are employed for the maximum penetration depth to be effective on the fibroblasts in the soft tissue and osteoblasts in the bones.

**Non-thermal, polychromatic, near-infrared light of the non-pulsed, non-collimated, non-ionising type can penetrate through the epidermis tissue, resulting in the photons being refracted many times and absorbed by the cell structure to produce the following effects in sequence:**

- Dilation of partially obstructed blood flow vessels to transport higher volume of oxygen and nutrients for the initial therapy to begin.
- Cytochrome-C oxidase (COX) is a large trans membrane protein of the inner mitochondrial membrane. Irradiation of COX increases the activity of the mitochondrial respiratory chain producing more adenosine triphosphate (ATP). In addition, COX is auto-inducible and its gene expression is activity dependent, such that NIR irradiation may increase the amount of available COX over time.
- Higher ATP amount triggers viable proliferation of fibroblast cells for increased collagen fibers, elastin and fibrin.
- Antibacterial effects by induction of reactive oxygen species (ROS).
- ROS are involved in cell signaling, enzyme activation, nucleic acid synthesis, protein synthesis, and the activation of transcription factor.
- Anti-inflammatory effects of NIR therapy can be explained by inhibition of prostaglandin, interleukin, and cytokine in cell models.
- Increased platelet activity for faster wound closing.
- Adhesive protein delivery to the inflammation site.
- Quicker re-epithelization for covering the open wounds, scar formation.
- NIR released NO (nitric oxide) induces endothelial cell migration by activating growth factors and improved perfusion.
- Homeostasis followed by ANGIOGENESIS.
- NIR light spectrum also increase the diameter and blood flow velocity of the peripheral arterioles and will enhance the microcirculation.
- Increased speed of mitosis, facilitating cell multiplication to aid in new vessel formation.
- Viable proliferation of fibroblast cells-stimulation of cell division and cell growth of fibroblasts plays an important role in wound healing.
- Polychromatic wavelengths of NIR irradiation have been tested on cellular migration, viability, and proliferation in diabetic wounded and unwounded human skin fibroblast cells.

**The main work of the mechanism uses leukocyte proliferation, neovascularization, fibroblastic proliferation and rapid epithelization. All these mechanisms produce rapid closure of wounds and stronger scar formation. NIR also reduce the pain around lesions along with reduced inflammation for the patient comfort.**

# RX-1 Seat *Near Infrared*

## *Low Level Laser Photobiomodulation*

*Non-Thermal, Non-Collimated, Scattered Laser Therapy*



### **Cosmetic Uses by Plastic Surgeons:**

- Vaginal rejuvenation, treat dryness, pain due to aging, and tighten perineal muscles after childbirth.
- Promotes faster healing and reduces inflammation upon labiaplasty laser surgery.
- Non-invasive alternative to minor laser surgery.
- Reduced hyper-pigmentation in genital and anal area.
- Reduced redness/inflammation/itching in genital and anal area after invasive medical treatment.



### **For Use in Gyms, Spas, & Physical Therapy:**

- Near Infrared phototherapy (NIR), 600nm to 1200nm range for promoting well being and the rejuvenation of cells.
- Pain relief, wound healing, and the prevention of pressure sores by photobiomodulation at the cellular level.
- Reduced symptoms when used for haemorrhoid shrinkage/pain/itching and incontinence.
- Regaining anal sphincter muscle elasticity with multiple uses.
- Pelvic floor muscle rehabilitation for urinary incontinence.
- Reduced minor prostate, urinary tract related pain as an adjunct therapy device.
- Rejuvenation of the penile sponge tissue to resolve erectile dysfunction symptoms of diabetic and elderly patients.
- Improved testicular micro circulation for increased testosterone output; uses in male infertility for increased sperm motility.



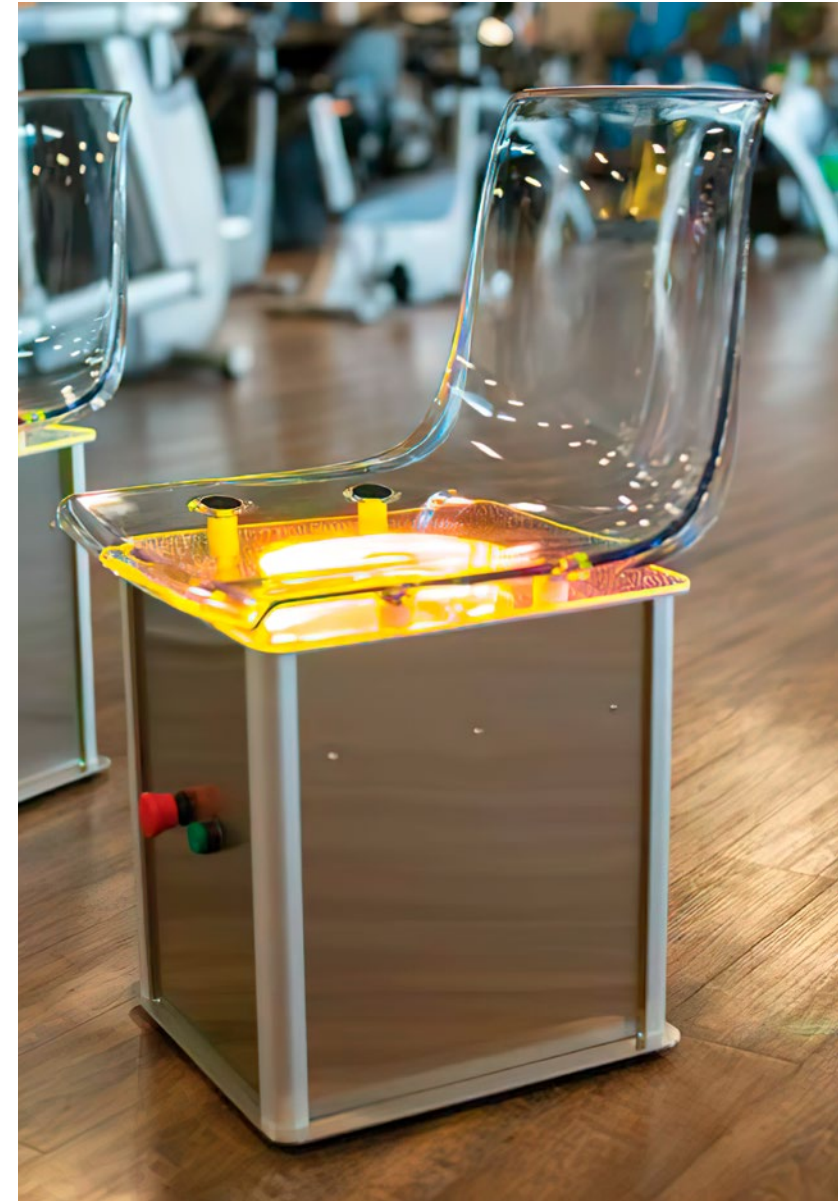
# RX-1 Seat *Near Infrared*

## Safety Features:

- Thermal shutdown.
- Current fusing.
- Filter failure instant shutdown.

## Specifications & Features:

<b>Dimensions</b>	16 inches by 16 inches by 18 inches high
<b>Aperture</b>	9 inches diameter round opening
<b>Time duration</b>	10/20 minutes, automatic shut down
<b>Reflector type</b>	Parabolic, non-collimated
<b>NIR laser power</b>	500 Watts
<b>Lamp life</b>	30,000 minutes
<b>NIR energy dosage</b>	52,000 mJoules/cm <sup>2</sup> per day
<b>Operation</b>	Sitting down, irradiation through light clothing/underwear
<b>Frequency of use</b>	10 minutes, once or twice per day as long as symptoms persist
<b>Amperage</b>	5.5 Amp @ 120V AC; 3 Amps @ 220V AC
<b>Light source</b>	Polychromatic, NIR
<b>Power input</b>	120V AC @ 60Hz; 220V AC @ 50 Hz
<b>Power inlet</b>	IEC grounded with EMC filter
<b>Multi wavelengths</b>	10 peaks between 600nm & 1200nm
<b>Penetration depth</b>	3 inches with longer wavelengths
<b>Laser risk</b>	No burning, no scars, LLLT
<b>Patient dress code</b>	High transmission through clothing
<b>Hands-free operation</b>	Can be self-administered
<b>Construction</b>	Stainless steel for hygiene





# RX-1 Stand *Near Infrared*

*Wide Exposure, Scattered, LLLT Cold Laser*



Collagentex RX-1 delivers 500 Watts of near infrared, non ionising LLLT light energy, targeting soft tissue for rapid NO production and vasodilation, lymphatic drainage and subsequent Cytochrome-C oxidase stimulation for increased ATP production, enhanced cell proliferation, anti-inflammatory effects of prostaglandine, interleukin, interferon at cell level to complement existing therapies for a natural healing process.



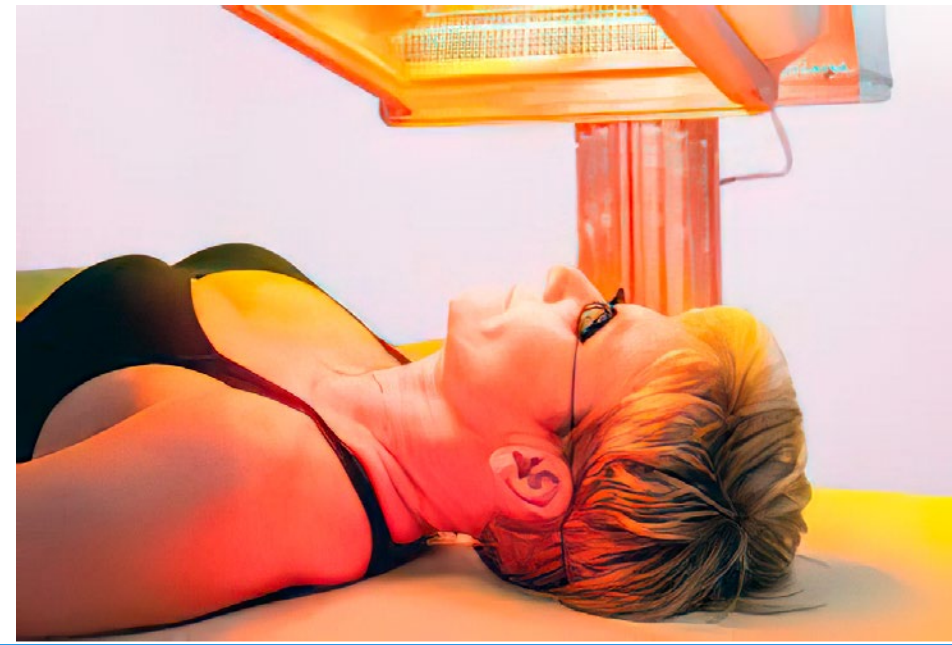
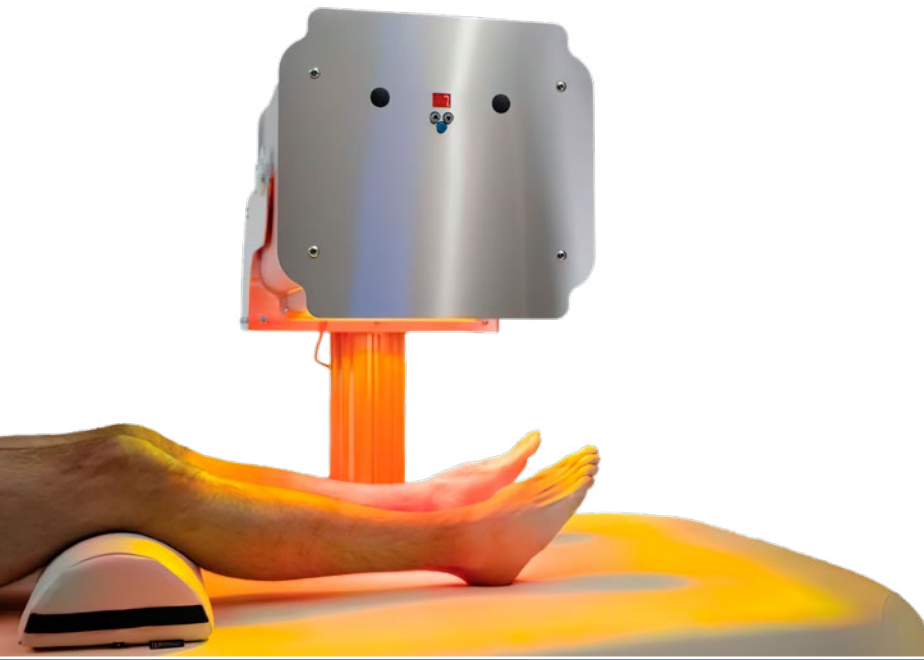
# RX-1 Stand *Near Infrared*

## Non invasive musculoskeletal pain treatment:

- Achilles heel tendinopathy
- Golfers elbow, tendonitis
- Carpal tunnel pain
- Back pain
- Micro ruptured ligaments
- Rheumatoid arthritis pain
- Plantar fasciitis pain
- Degenerative joint disease
- Neuropathic pain
- Inflammation, lymphoedema
- Soft tissue disorders
- Orthopedic post operation

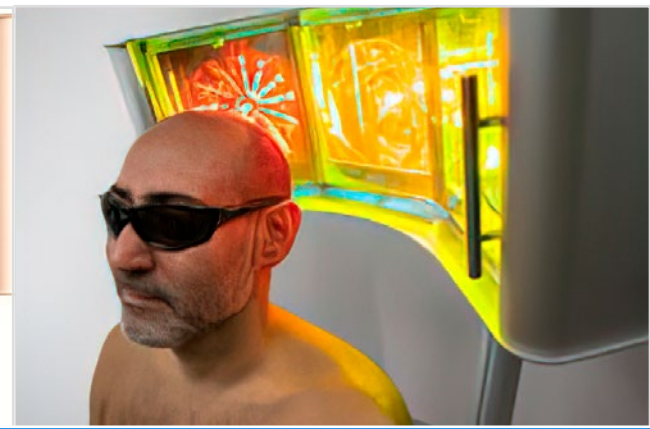
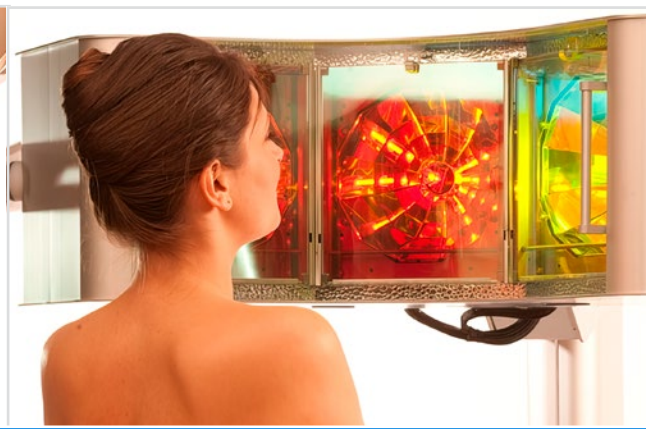
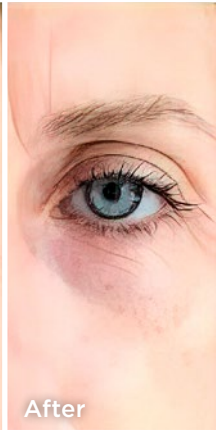
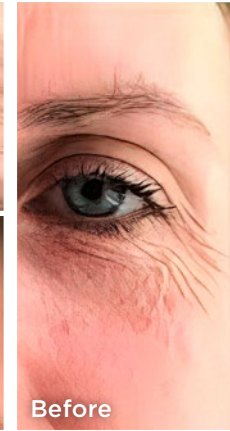
## Specifications & Features:

<b>NIR Laser Power</b>	500 Watts, uniformly scattered
<b>NIR Energy Intensity</b>	52,000 mJoules/cm <sup>2</sup>
<b>Multi Wavelengths</b>	10 peaks between 600nm & 1200nm
<b>Exposure Area</b>	178 square inches — largest ever
<b>Penetration Depth</b>	3 inches with longer wavelengths
<b>Short Treatment Time</b>	10 to 20 minutes
<b>Non Contact</b>	No hand piece disinfection time
<b>Hands-Free Operation</b>	Can be self-administered
<b>Laser Risk</b>	No burning, no scars, LLLT
<b>FDA Classification</b>	NHN cold laser for soft tissue
<b>Patient Dress Code</b>	High transmission through clothing
<b>Lowest Lamp Cost</b>	1.2 cents/minute



# RX-2 & RX-3 *Near Infrared*

- Two-lamp and three-lamp modules, enhanced shape provides greater coverage.
- Ideal for salons, spas, doctors, dermatologists, wellness centers and gyms.
- Stand-alone or converted horizontal use on a spa mattress.





# THY-Scanner *Near Infrared*

*Spectrum infrared healing light has a multiple array of benefits to improve your skin's appearance and your lifestyle!*



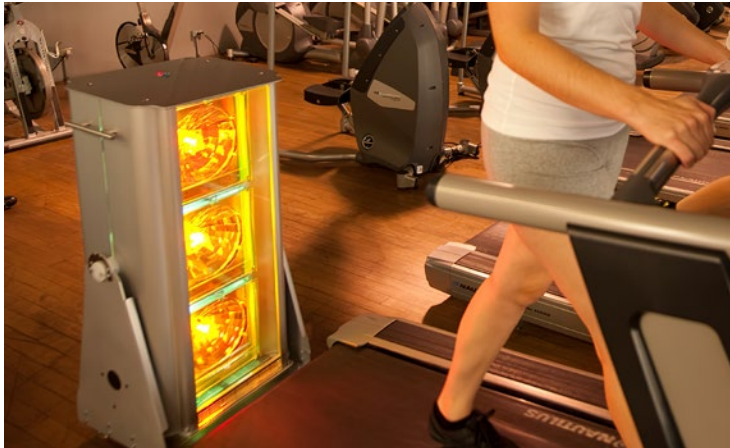
The high beams of THY-SCANNER light penetrate almost 1" under the skin's surface to reduce risk of strain, helping to effectively eliminate lactic acid build-up. THY-SCANNER will dilate capillaries and increase blood flow circulation allowing improved training results and accelerated tissue regeneration after work outs.



## **For Use in Gyms, Spas, & Physical Therapy:**

- Reducing cellulite.
- Getting great lymphatic drainage.
- Stimulating fibroblasts allowing natural collagen build-up for firmer skin, progressing to a long-lasting layer of elasticity.
- Shaping legs while tightening skin for silky smooth thighs and calves.
- Eliminating stretch marks, age spots and old scars.
- Eliminating uneven pigmentation from sun damage.

# THY-Scanner *Near Infrared*



## Features:

- Easy to program, the portable THY-SCANNER rolls near any gym equipment, treadmill, elliptical trainer or vibration unit.
- Improve your workout while reducing risks of injuries.
- Reduce muscle recuperation time and manage pain caused by lactic acid.
- THY-SCANNER has a very small footprint for high revenue per square foot of space.
- Patent awarded oscillation motor allows gentle scanning of the legs at one RPM.
- Low power consumption — costing only 4 cents of electricity per 15-minute session.
- Low maintenance, easy lamp replacements.
- All stainless steel and durable anodized aluminum construction with 10-year extended warranty program.
- Available finance & lease-to-own options with 0% interest for approved customers.





# RX-6 Full Body Unit *Near Infrared*



## 6 Oscillating Quartz Plasma Lamps

### **The quartz difference. Skin Science that works!**

- All new Plasma-arc technology delivers high energy infrared wavelength rays that are both powerful and ultra safe
- Quartz spectrum rays reach a dermal depth greater than any system and up to and ten times more powerful than traditional LED systems
- Infrared light has been listed in many scientific studies as it “penetrates deeper for lymphatic drainage, fibroblast stimulation for all natural collagen and elastin production while reducing inflammation from other invasive aesthetic procedures”
- Ideal for spas, doctors, dermatologists, physiotherapists, professional massage therapists, holistic therapies, wellness centres, weight loss centres and gyms
- No UV emissions, output is certified by spectral radiometer testing
- Intensity of treatment and coverage area is adjustable by remote control electronic height adjustment
- Hot spot elimination is achieved by utilizing an oscillation type mechanism to scan the clients body every 15 seconds side to side
- RX-6-treatments will encourage positive improvements in the users complexion
- Deep penetrating heat and powerful bright light ambiance has been very effective for improved well being in the majority of users

# RX-6 Full Body Unit *Near Infrared*



- Salons, spas and high end gyms utilize deeper penetrating heat as part of their relaxation and anti-aging benefits that includes rapid pore size reduction and skin tightening resulting in a younger looking, glowing skin.
- Session time is 20 minutes which can be divided into both sides of the body.
- Fully anodised aluminium and stainless steel body is easy to keep sanitary for clients.
- Recommended by dermatologists and oncologists.
- NIR Laser Power: 3600 Watts, uniformly scattered.
- NIR Energy Intensity: 52,000 mJoules/cm<sup>2</sup>.
- Units Dims: 20 inches x 35 inches x 80 inches
- Voltage: 220V AC

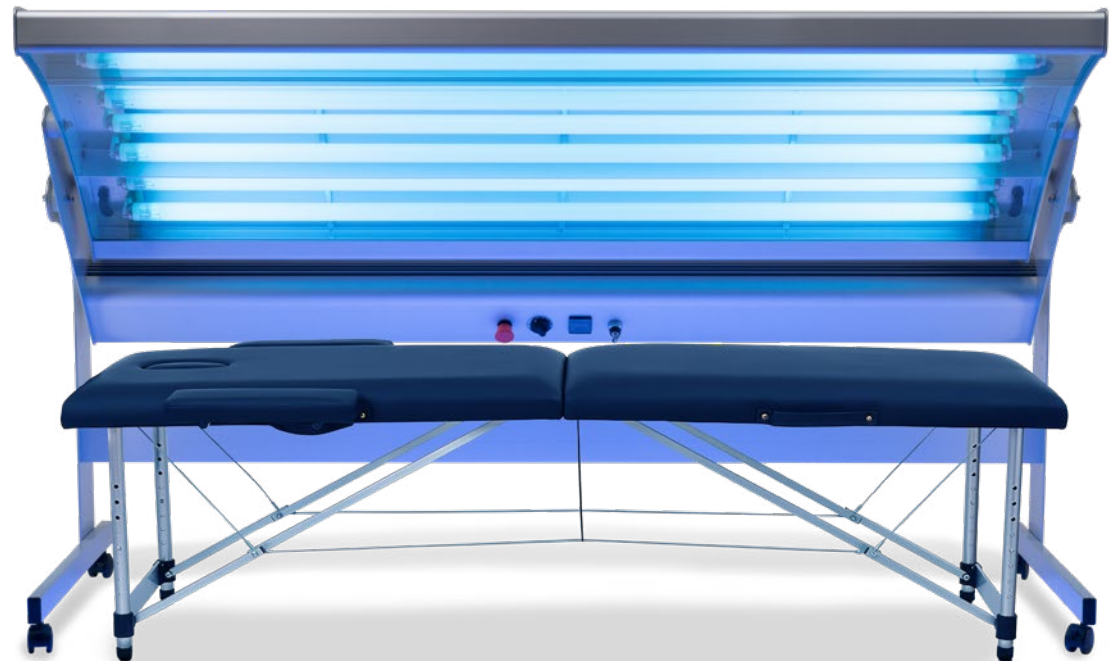


# SF-8 Vertical & Horizontal

## Frequency Therapy for Home or Clinic

Our most affordable Ultraviolet A/B low pressure solar therapy system can be used as a separate stand-up unit or in conjunction with a full size bed or massage table. Combine with PEMF therapy to emulate the frequencies of the Earth & Sun.

- 8 lamps of UVA & UVB spectrum
- 800w total (8 x 100w)
- Foldable, height and tilt adjustable
- Mobile on casters or can be mounted to a wall
- Versatile, adaptable to multiple uses
- Stainless-steel body panels compliment all types of decor
- Power Inlet: EMC/EMI filtration at the power inlet
- Structure: Durable high quality metal (anodized aluminium)
- 32.5 inches wide by 75.5 inches exposure area
- 80.5 inches total length, 36 inches high
- 8 inches wide when used as horizontal canopy unit
- Power Input: 120V AC, 60Hz; available 220V AC 50Hz version
- Amperage: 5.0 Amp





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