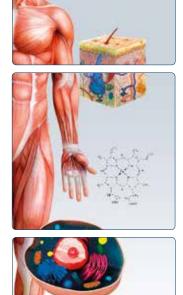
# Laser Therapy

Natural healing with laser energy





# **RJ-Medical Lasers**

RJ-Laser devices cover the whole area of LLLT/HLLT and offer a successful diagnosis and therapy for the beginner and advanced practitioner.

RJ-Laser devices are made for application to individual points, reflectory therapy and for the treatment of larger areas, deep tissue layers.

### Lasers for biomodulation (LLLT and HLLT)

Generally, these lasers belong to class 3B (cw and pulsed/superpulsed) but can also be class 4 (with wide beam as the LightStream).

# The natural and holistic way

RJ Low level laser (LLLT) and high level laser (HLLT) devices are used for non-invasive diagnosis and therapy.

## For research and daily practice

- Body acupuncture
- Ear acupuncture
- Orthopedics
- Sports medicine
- Physiotherapy
- Wound management
- Pain management

# Made for Professionals

The RJ-LASER concept is based on more than 35 years of experience in laser research, development and production of innovative medical laser devices for diagnostic and therapeutic purposes.

RJ laser devices\* stand out due to their many features, modern ergonomic design, and high level of efficiency.

## RJ has the professionel solution

<u>Laser for diagnosis and therapy, for every area of application, cl. 3B and cl. 4, in almost every price range.</u>

LaserPen	Points and small areas
LightStream	Points, smal, medium and large areas
Physiolaser olympic LightNeedle	Points, small, medium and large areas

<sup>\*</sup>All RJ laser devices are subject to a full two year quality warranty.

# RJ-LASER - Advantages

RJ laser devices utilize the latest hardware and software technology. As a result the RJ laser devices are compact, portable and with an almost unlimited range of functions, as well as high level of power and frequency precision.

Depending on the model, RJ laser devices are programmable and offer preset therapy programs. You can even configure your individual therapy settings depending on pathology and individual protocols. An extensive frequency memory facilitates you to apply the latest research results to your course of therapy.

Enjoy relaxing therapy, because the modern ergonomic design means comfortable work. Precision in its finest form.

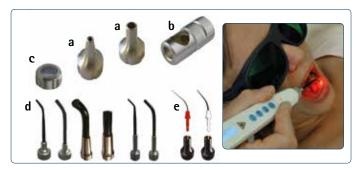
RJ laser devices offer comprehensive accessories, such as laser probes for spot and surface treatment, fiber optics and special tripods.

The wavelengths used by RJ laser devices are within the "optical win-

The wavelengths used by RJ laser devices are within the "optical window" of minimal water, hemoglobine and melanin absorption, resulting in deeper penetration. RJ offers wavelengths from visible blue 405 nm to invisible infrared 915 nm.

Many interchangeable laser tips are available, adapted to special areas for easy operation. For larger surfaces, mouth/throat, trigger points, acupuncture points:

- a) point applicator
- b) medication applicator
- c) convex lens
- d/e) applicator with fibre attachment



# Intelligent therapy software

RJ Laser devices work with intelligent therapy software to provide easy operation, the highest precision and safety and bio-functional therapy information, giving you the flexibility to upgrade or to apply the latest research results to your therapy.

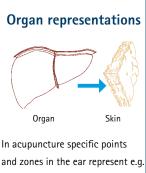
- Free programmable, individual protocols
- Continuous beam, universal frequency range
- Nogier/Bahr/Reininger/Scholtes bio-frequency system
- Frequencies of chakras (BAHR)
- Meridian frequencies (Li, St, He, Ci, Li, Gb, Ki, Bl, Pa, 3H, Si, Lu)
- Many therapy programs

With just one hand on the device, you can select the frequency for the body part and pathology in question. Example – Nogier frequencies:

Frequer	ncy/Hz Disease, part of the body	Acupuncture
A'/292 Acute illness, cellular level, inflammation, tumors		
	Body orifices	Shu point
B'/584	Chronic illness, metabolism, cell-nutrition	
	Abdomen	Sedation
C'/1168 Circulation, energy transfer, motoric disorder		
	Bones, muscles, joints, extremities	Tonification
D'/2336 Psychic disorders, fatigue, laterality disorders		
	Commissures	Alarm point
E'/467	Nerve disturbances/pain, neuralgia	
	Spinal cord, nerves	Starting point
F'/9344 Depressions, psychic symptoms/causes, bone reconstruction		
	Face, subcortex, emotions	End point
G'/18688 Intellectual and psychosomatic disturbances		
	Frontal cerebral zone	Source point

# Analysis of the organ points in the ear (RAC)





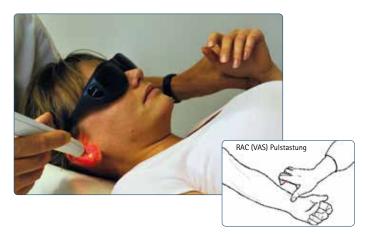
internal organs.

According to NOGIER the RAC pulse for these points indicate the condition of the corresponding

organ or body part.

#### Frequency diagnosis:

The pre-programmed frequencies enable you to make a (RAC) diagnosis according to NOGIER (pulse controlled, energetic diagnosis and therapy).



# LaserPen



The LaserPen is a modern high-end laser using the latest technology. It is programmable and offers NOGIER/BAHR/REININGER meridian and chakra frequencies.

The LaserPen is available with superpulse 90 W/904 nm GaAs (pulse width 200 nsec.) and as a cw laser with the range of 50-500 mW/810 nm or other wavelengths e.g. 638 nm, 785 nm.

The LaserPen is available in two versions to meet your budget and therapy requirements:

- 1. practice version (basic)
- 2. expert version (comprehensive functions).

#### Delivery contents:

Main unit, power station, power supply, point applicator, carrying case, two safety goggles, technical manual, laser warning sign. Laser cl. 3B





LightStream | Class IV High Powered Laser

LightStream | High Power is an innovative class 4 therapy laser and offers up to 15 W laser power, so-called HLLT (High Level Laser Therapy). The therapy with the LightStream works tremendously fast and deeply penetrating. It can be used for any indication in the field of biomodulation/biostimulation.

The therapy with the LightStream is non-invasive, gentle, relaxing and refreshing. During the treatment the patient feels an intensive deep warming sensation, a biological "flooding of light" which will lead to increased cell metabolism and improved blood circulation.

Wave length: 670/808/915 nm

Pilot beam: 530 nm Power: 15 W cw

Mobile laser: upt to 3 W/810 nm

cl. 3B and cl. 4





The LightStream consists of a central control unit plus a stationary laser and/or mobile laser device with four wavelengths transmitted via fiber optics or a mobile laser with one wavelength.

The LightStream mobile is as well available as class 3B with multiple laser heads (single and multi-cluster).

The communication between control unit and laser works with bluetooth.

protocols.

LightStream is fully programmable, the and has optimized application programs and a complete range of proven biofrequencies (Nogier / Bahr / Reininger / Scholtes etc.), individual



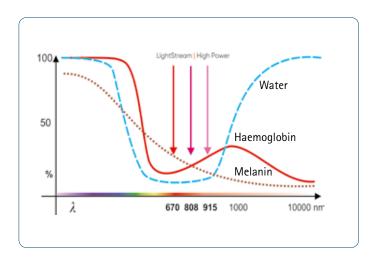
#### The "optical window" = optimal penetration depth

The LightStream HighPower has three therapeutically proven wavelengths, 670 nm, 808 nm, 915 nm. The wavelengths are in an "optical window" for optimal penetration depth (lowest absorption of water, hemoglobin, water and melanin).

#### Therapeutically effective wavelengths

The selection and combination of the special wavelengths are the foundation for the therapeutic success. All relevant tissue layers are achieved because the area of the visible red spectrum has a tendency to upper tissue layers and the non-visible infrared region tends somewhat more into deeper tissue layers. Further more e.g. the ATP synthesis (a main factor for cell excitation) via absorption bands of the cytochromec-oxidase is triggered perfectly.

Especially the 670 nm, 808-830 nm and 905-915 nm have been the outstanding wavelengths of photobiomodulation for many years and many studies have shown that they are now available with high power.



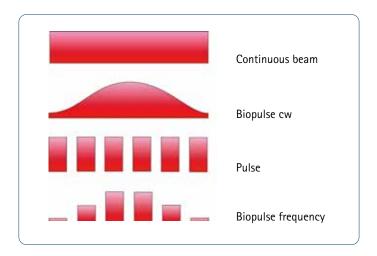
#### Power in abundance

The high performance of the LightStream High power allows short treatment times and ensures sufficient energy supply for photobiomodulation even in deep tissue coatings. Large areas of the body can also be treated simply by increasing the distance between the handpiece and the skin.

# Modulation, programs, favourites, treatment plans, skin test

Technical parameters such as performance, modulation, pulse width and many more are pre-programmed or freely programmable to ensure individualized therapy.

It is also worth mentioning the patient-specific design of treatment plans, skin test, favourite settings etc. so that the laser therapy can be directly delineated to the trained staff.



#### Delivery contents

Control unit, stationary laser, power supply, two protection googles, carry case, user manual, therapy handbook, laser warning sign.

# Physiolaser olympic



Physiolaser olympic - the modular premium laser system -

The programmable Physiolaser olympic is a high-end laser that offers everything you need for comprehensive therapy and diagnosis. The range of functions in this compact package makes it the worldwide leading system.

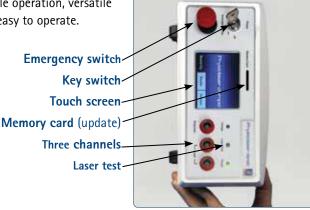
- single and multi-cluster probes (LLLT and MLLT)
- LightNeedle module (6 or 12 channels with fiber optics)
- scanning head (Satellite)
- diagnostic module (body acupuncture, points in the ear)
- Therapy programs, individual protocols and many more

<u>The special laser output with precision lense for high lumination</u> and optional adapters enables deep penetration (muscles, trigger points, joints, wound healing).

The Physiolaser olympic comes with a built-in high-power rechargeable battery (perfect for mobile outdoor use), but it can be connected to an outlet as well.

# The universal laser for all indications of LLLT and all levels of auricular medicine and acupuncture

Fits in one hand, made for mobile operation, versatile and easy to operate.



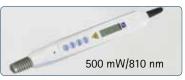
- Use the probe separately or simultaneously (point + cluster).
- Up to 500 mW or with the famous 90 W superpulse (pulse width 200 nsec.).
- Wave lengths: UV, visible red (638 nm) to infrared 810/904 nm.
- Settings are displayed clearly on the touch screen and probe. (time/energy/power/frequency).
- Exchangeable probe tips for safe and precise application.



#### **Delivery contents:**

Laser main unit, charger, safety goggles, warning sign, technical manual, safety lock, key, carrying case. Laser class 3B

Probes are optional.







# Satellite







The Satellite is a scanning laser, perfect for the irradiation of small and large body parts. It works as a "probe" connected to the Physiolaser. All basic settings are made on the touchscreen of the Physiolaser e.g. time, energy, modulation frequency, therapy program, individual protocols etc. Fast setting of the beam size and diameter (axis X/Y) according to the body part with only two buttons on the front panel.

**Therapy example:** Treatment after injury of the face. The centre of the wound was irradiated vertical to increase healing and lips and mouth received horizontal irradiation to reduce swelling and pain. Pulsating circular irradiation for the joints on hand and fingers.







# Deep therapy and stimulating spin modulation (right turn)

The Satellite is portable and can be installed quickly even in the smallest cabins.

The Satellite can produce a large variety of pulsed areas, which can be specified quickly and simply.
Select the size based on body part/shape or wound:

- Point/circle, ellipse
- Rectangle
- Line, X-axis and Y-axis

Treatment of the neck/shoulder



The compact design means <u>nearly</u> <u>effortless operation, comprehensive, fast and precise.</u> In spite of its high power and extensive functions, the extremely flexible Satellite fits almost anywhere.

It is portable and can be installed quickly in even the smallest treatment rooms.



Treatment of the lumbal region

Delivery contents: Main unit, stand or universal arm.

Technical data

Laser 1 638 nm/150 mW, pilot beam 5 mW

Laser 2 810 nm/500 mW



# LightNeedle



The LightNeedle laser device works in conjunction with the Physiolaser and takes advantage of the therapy programs and protocols. It is available in two versions, with 12 or 6 outlets.

Simply attach it to the laser outlet and start the therapy. The operation is optimized for daily clinical use: fast and easy, channel selection in groups, reliable and safe photon transfer, individual protocols!

# The innovative acupuncture and therapy of deep tissue layers

The LightNeedle offers precise and strong laser stimulation of points and deep tissue layers and it can be widely used for many therapeutic applications.

# Patented safety tip

The patented safety tip offers for the first time a stable and secure treatment. Conventional systems are attached straight and causing unstable contact because the tip suffers under the weight of the fiber and tends to lose contact and its position.

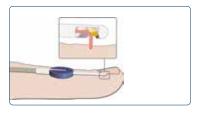
The patented safety tip of the LightNeedle is placed flat onto the skin and has a beam exit of 90°. The tip can easily placed on any body part, may it be small or large, front and back at the same time, the patient can get a treatment in any position.

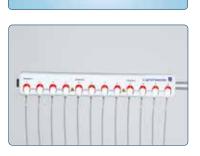


# The main advantages

standard medical tape!

- modular system
- 12 x 50 mW/655 nm
- mono fiber optic (stabilty)
- standard tape
- biofrequencies
- compact and mobile





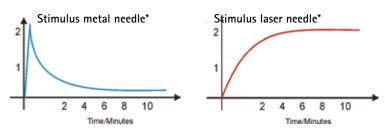
#### **Delivery contents:**

Main unit, 12 fiber optics and applictors, power supply, technical manual, fiber optics holder, carrying case.

# It's simply better!

The LightNeedle system offers a large variety of therapeutic applications. It is easy to use: Select the time and attach the patented tip of the fiber optic to the body or acupuncture points.

LightNeedle acupuncture is relaxing and painless. It offers a long lasting stimulus\* and is widely accepted by the patients\*\* and seems to be even more effective than conventional needle acupuncture. Because once the fiber is placed no further manipulation is required.



# For the widest range of LLLT applications

The LightNeedle therapy can be used for many medical laser applications except on open wounds (laser shower or Photonic is required). The tip can be positioned perfectly and allows that the beam easily penetrates deeply into the body.

- Acupuncture
- Pain management
- Trigger points
- Joints
- Tendons
- Muscular skeletal system
- Nerves



<sup>\*</sup> Spectroscopy 16 (2002) 335-342, page 6 Near-infrared spectroscopy for objectifying cerebral effects of needle and laser needle acupuncture Gerhard Litscher, Dep. of Biomedical Engineering/Research in Anesthesia/ Critical Care, University of Graz, 8036 Graz, Austria

Detlef Schikora, Department of Physics/Optoelectronics, University of Paderborn, 33095 Paderborn, Germany



Fibers placed on acupuncture points



Shoulder

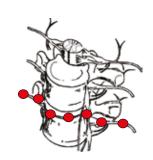


Neck tension

In case of lumbal pain place the fiber tips at and around the nerve outlet. In many cases it is recommended to place several tips along the nerve. Treatment duration 15–25 minutes.



Back ache



<sup>\*\*\*</sup> Patients' sensation during and after laser needle versus metal needle treatment. van Amerongen KS, et al).

RESULTS: The common metal needle technique was well known by the patients in comparison to the laser needle method (p<0.0001\*\*\*). Laser needle acupuncture is a method which is painless (p<0.0001\*\*\*), energy inducing and relaxing (p=0.0257\*) which leads to a warming sensation (p=0.0009\*\*\*) during treatment.

# **Optional Probes**

Physiolaser

Single probe, cw/superpulse Large display for detailed and fast reading, buttons for therapy selection, 500 mW and 90 W.



Multi-cluster probe, cw Four models are available, each probe has 12 laser diodes + 12 LEDs (red or ultra violett).



Multi-cluster probe, superpulsed Five laser diodes (superpulsed), each 30 (60) W/904 nm, pulse width 200 nsec., movable tips or focussed beam.



Multi-cluster probe, superpulsed knee applikator



#### Photonic Satellite

The mobile scanner with 500 mW/810 nm/150 mW/638 nm. Highest mobility, fast and easy to apply.



#### LightNeedle

12 or 6 x 50 mW/655 nm, special fiber optics, patented safety tip, sublingual applicator, vessel applicator.



# Science & Support

**RJ laser devices** put you at the forefront, giving you all the options. As a market leader, we offer tomorrow's technology today. Our products are proven thousands of times and have been trusted by practitioners since 1982.

**RJ laser devices** are designed in cooperation with experienced therapists and developed using the latest medical and technical research. Treatment with **RJ laser devices** affect the body's metabolic and control functions at two levels:

#### 1. Energy supply - 2. Transfer of frequency information

<u>The primary factor</u> in the laser's operation is cell stimulation. Studies have verified that photoreceptors (cytochromes, flavoproteins) can absorb laser energy, which, e.g. stimulates the respiratory chain, so-called oxidative phosphorylation.

<u>The secondary factor</u> is the transfer of information by means of the monochromatic, coherent laser beam. This process requires the availability of exact biofrequency information.

The exact bio-frequencies are preset in the **RJ laser devices** and make it possible to manage the therapy to produce optimum results (resonance phenomenon).

**RJ** offers comprehensive training seminars and laser support. Please visit our website **www.rj-laser.com** to get the latest therapy and product information and download research data, clinical data and manuals.



RJ has the perfect laser for your diagnosis and therapy. Convince yourself, put it to the test.

Laser warning signs on the devices:







# Therapy Example

Wound Management / Soft Tissue Injury

Female patient suffering of soft tissue injury after traffic accident. Therapy protocol: 15 minutes (approx. 190 Joule) 3x daily during the first 2 days, thereafter 2x daily and the last 4 days 1x daily, total 7 days. Date June 2008, RJ-LASER Research Department, Leonhardtstr. 5, 14057 Berlin.

Day 1: The morning after the accident. The wound was still wet without any closure, severe pain. The lip mouth area was swollen and jaw movement obstructed.



**Day 2–3:** Completely covered with scurf, dry wound less edema.



**Day 4:** Reduced wound size, reduced edema.



**Day 6:** The crust already started to fall off. Beside some redness the skin was normal.



Day 8: The last two days no laser therapy. Except of a tiny spot which is still fading away, the skin and deeper tissue layers are normal in color and size and scar free.



# Therapy Example

Wound Management / Burns

Female patient suffered under acute burns (2<sup>nd</sup> and 3<sup>rd</sup> degree) caused by a gas explosion at home. She was admitted to the hospital for first aid two days after the accident.

After the first day of treatment the patient was almost pain-free and regeneration of the skin began (the patient felt soft healing sensations) and she was able to start to move her arm freely.

Ben Hayan Medical Center, Dr. med. Abdel Tawil Amman 11194, Jordan, Shmaisani

June 2005 Device: Physiolaser olympic + Polylaser trion

Before laser therapy (02.07.2005).



After laser therapy (20.07.2005). Almost complete healing of the skin after only two weeks treatment.



Upper arm



Lower arm



contact@rj-laser.com

## Quality Management ISO 13485:2016 + AC:2016



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Distributor

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