Theal Therapy

The Latest Frontier in Rehabilitation

Mectronic
INNOVATION IS OUR MISSION

Since 1986 Mectronic designs and manufactures devices for physical therapy, and by producing over 15'000 laser systems it is leading know-how and experience in the field of therapeutic lasers. From the earliest surgical laser and CO2 laser, Mectronic has reached important goals, the result of collaboration between its own team and research centers, universities, national and international institutes. Mectronic has always distinguished itself in technological innovation, anticipating for years the main technical and applicative uses of the laser for therapeutic purposes from the first use of Nd: YAG laser in therapeutic mode, the use of semiconductor laser sources, from the first laser to three wavelengths, up to the first 1064nm broadband semiconductor laser system, therapeutically more effective and with low energy consumption. From then until now, this process has led to the development of new more efficient therapies, with new features and guaranteed results. The latest innovation in the Mectronic home is the ultimate THEAL THERAPY, the method featuring 7 distinct patents.

THEAL THERAPY is an exclusive, effective and patented method. THEAL THERAPY is implemented by two unique and innovative devices designed and manufactured by Mectronic: iLux XP and iXyon XP.

OUR PARTNERS IN SPORTS

Numerous sports medicine professionals use the methodologies developed by Mectronic to obtain excellent results in muscle recovery and athlete rehabilitation: from preventive care, to first athletic aids, to the rehabilitation and reintegration of the athlete, Mectronic offers the best therapies for its champions.
The results of THEAL THERAPY are scientifically proven by research conducted at prestigious universities. In clinical studies, it appears that, for 93% of the patients, the pain diminishes immediately and significantly from the first session.

**WHAT IS THEAL THERAPY?**

THEAL THERAPY is a unique, targeted and personalized therapeutic method that extends the applicability of phototherapy and laser therapy. THEAL THERAPY is effective on pain and joint mobility from the first session, providing immediate relief to the patient and allowing them to quickly undertake the rehabilitation path.

**THE BEST FOR YOUR PATIENTS**

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93%* of patients treated with THEAL THERAPY experience immediate pain relief.

*Short-term effect of Shockwave Therapy, Temperature controlled High Energy Adjustable multi-mode emission Laser (THEAL THERAPY) or stretching in Dupuytren's disease a prospective randomized clinical trial.
WHAT ARE THE APPLICATION FIELDS?

THEAL THERAPY is a totally adaptive and customizable method. For this reason its fields of application are many. THEAL THERAPY is the solution required by different types of operator to solve many pathological conditions.

CURE HERNIAS WITHOUT PAIN

Thanks to THEAL THERAPY, today it is possible to undertake new therapeutic challenges. Neuropathic diseases such as those of the column, or canalicular syndromes, are no longer insurmountable walls. Hernias, disc protrusions, lumbagoes caused by nervous compression, can be successfully addressed.

With the ability to selectively modulate laser energy, THEAL THERAPY allows to treat disk hernias providing immediate relief to the patient and allowing them to undertake rapid rehabilitation.

Mectronic collaborates with various institutes and universities, in order to underline the beneficial effects of the developed therapeutic methods. The scientific research staff aims to deepen the therapeutic application of different biophysical stimuli in musculoskeletal disorders. In particular, in the face of a progressive side-to-side clinical use of high-tech therapies, scientific research is almost completely lacking in studies of specific biophysical stimuli. For this reason, prospective randomized clinical trials have been launched to verify the short-term and long-term clinical effects of THEAL THERAPY.

The following Scientific Research was published to demonstrate the effectiveness of THEAL THERAPY:

“Temperature controlled high energy adjustable multi-mode emission laser therapy (THEAL) for the treatment of lower back pain: clinical efficacy and comparison of different wavelengths”

Notarnicola Angela, Covelli Ilaria, Fiore Alessandra, Fari Giacomo, Megna Marisa, Moretti Biagio (Bari)

This study, conducted on 60 patients, showed the efficacy of THEAL THERAPY: by analyzing the level of pain, through the VAS scale, the Oswestry Score and the Roland Scale before the treatment, at the end of the session cycle and at a distance of 1, 2 and 4 months, it was noted that THEAL THERAPY is extremely effective in treating hernias and lumbago.

The pain decreases immediately after the first session and at the end of the session cycle, and the benefits persist for months. THEAL THERAPY is a valuable ally in the treatment of hernias, discopathies and lumbago, thanks to its innovative selective polymodal emission, it provides immediate, effective and safe results.

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UNLOCKING THE BODY'S OWN HEALING POTENTIAL

The luminous energy of THEAL THERAPY allows to interact with biological tissues by triggering the metabolic reactions necessary to accelerate the process of natural healing. The THEAL Photon Therapy, when interacting with biological tissues, releases their energy to the cells by allowing the chromophores to transform it into other forms of energy to support photobiomodulation at the base of all the metabolic processes.

The photobiomodulation, at the base of all the metabolic activities, is triggered by the selective absorption and naturally thermal laser light that allows to obtain three basic effects: tissue regeneration, modulation of the inflammatory action and analgesic effect.

THE KEY OF THE NEW PHOTOTHERAPY

All devices capable of implementing THEAL therapy allow you to emit red laser light at 650nm with a power of 2W (2000mW).

The wavelength 650nm represents a very good compromise between depth of action, photon energy and selective absorption by the main chromophore of the cell photobiomodulation, Cytochrome C Oxidase.

The laser light at 650nm while being primarily absorbed by the melanin provides a significant energy exchange at a superficial level and average depth favoring an effective biomodulant effect. It also inhibits bacterial proliferation and promotes cell growth, enabling incredible results in healing wounds, lesions and ulcers.

The high number of studies and scientific research conducted using this wavelength confirms its extreme effectiveness.

“Low-Level Laser Therapy Enhances Wound Healing in Diabetic Rats: A Comparison of Different Lasers”

FAROUK A. H. AL-WATBAI
The ability of the laser light to penetrate deep is certainly very important, but not sufficient, indeed, as the first law of photochemistry "Light must be absorbed before photochemistry can occur" is much more important: the ability of the laser light to interact and to be absorbed by biological tissues.

All wavelengths within the therapeutic window (600nm - 1100nm) allow to interact with biological tissues by triggering photobiomodulation processes, but it has been shown that some of them are definitely more effective. It is scientifically proven that the main cellular chromophore of photobiomodulation is the Cytochrome C Oxidase, an enzyme present within the mitochondria, cellular organelles present within each cell of the human body.

Numerous recent scientific articles like “Re-evaluation of the near infrared spectra of mitochondrial cytochrome c oxidase: Implications for non invasive in vivo monitoring of tissue” (G.Mason, P. Nicholls, E. Cooper - 2014) and “Multiple Roles of Cytochrome C Oxidase in Mammalian Cells Under Action of Red and IR-A Radiation” (T. Karu - 2010) have demonstrated that the laser light in the visible red, such as that at 650nm, and the laser light in the range of 800nm - 850nm, are those most absorbed by the Cytochrome C Oxidase, enabling to trigger the photobiomodulation in the best possible way.

Between the wavelengths emitted by the main devices for THEAL THERAPY there are also 980nm and 1064nm. These two wavelengths while being less absorbed by the Cytochrome C Oxidase have other features which maximize the therapeutic results triggered by photobiomodulation.

“Light must be absorbed before photochemistry can occur”
THERAPY OF INFINITE POSSIBILITIES

THEAL THERAPY has been designed on the basis of all the most recent and important scientific researches on phototherapy and for this reason it is equipped with the fundamental wavelengths to trigger the photobiomodulation and the action on the thermo and mechanoreceptors and allowing to mix them in order to adapt to the patient and the specific pathology.

It is also equipped with multiple emission modes, a wide range of applicators and thermal control of biological tissues in order to maximize compliance and therapeutic results.

Thanks to the adaptive phototherapy of THEAL THERAPY it is possible to maximize therapeutic performance on patients with different physiopathological characteristics and with acute and chronic pain, edema, lesions, wounds and musculoskeletal disorders.

THEAL THERAPY: Healing with the support of the light

NO MORE LIMITS WITH THEAL THERAPY

Power plays a key role in the therapeutic laser action on biological tissues. THEAL THERAPY not only delivers laser light at different intensity but enhances its potentiality and effectiveness by allowing the operator to emit from very low energy levels to high intensity.

This revolutionary and unique method represents the meeting point for Low Level Laser Therapy (LLLT) and high intensity laser therapy. Thanks to this flexibility of work, the operator can treat different pathologies in different modes with different applicators.

Two laser methodologies, in a single machine. There are no more borders, thanks to THEAL THERAPY.
UP TO 8 WAVELENGTHS

For the therapist, it is crucial to have the choice between different wavelengths depending on ones needs. In fact, each wavelength has different diffusion and absorption properties in different biological tissues and interacts with biological tissues in a distinct way, triggering various chemical-physical reactions.

With THEAL THERAPY it is possible to combine 3, 4, 6 and 8 wavelengths mixes in one device: in fact, thanks to the new technology, the operator has available a range of wavelengths never seen before. With this range of possibilities, it is safe to treat best the acute and chronic problems of patients.

A PERSONALIZED MIX

THEAL THERAPY not only offers a wide range of wavelengths, but also allows you to create totally custom mixes, modifying energy declinations and interacting with biological tissues for safe and accurate therapy as never seen before.

Before now the wavelength mix was fixed and could not be changed, today the control is in your hands with the Lambda Mixer. This innovative system allows the operator to define the percentage of each wavelength, creating the most performing mix in order to maximize therapeutic results.

Thanks to THEAL THERAPY treatment is extremely safe, effective and efficient.

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Thanks to THEAL THERAPY treatment is extremely safe, effective and efficient.
In order to treat different patients with different pathologies safely, effectively and immediately, it is essential to customize therapy by defining the correct mix of wavelengths and emission modes.

For this reason, Mectronic has expanded the therapeutic horizons, allowing you to create custom mixes of wavelengths and implementing THEAL THERAPY with new emission modes. In a simple and intuitive way, the operator can choose up to 11 emission modes, differentiated for the benefits and characteristics of the laser pulse, ensuring maximum effectiveness and safety for each pathology.

Furthermore, THEAL THERAPY allows you to create customized output modes thanks to the innovative and powerful Wave Creator system. THEAL THERAPY differs from other methods thanks to its ability to adapt and personalize photon energy according to the patient and the pathology to be treated. Thanks to Lambda Mixer and Wave Creator, THEAL THERAPY is an adaptive, safe, unique and performing method.

THEAL THERAPY, in addition to the advanced Wave Creator system for creating customized emissions, features 11 emission modes designed to maximize photobiomodulation and action on thermo and mechanoreceptors. In particular, it has been shown that the optimal laser emission to trigger photobiomodulation must be continuous or pulsed with a pulse duration of at least a few milliseconds, as Hamblin said in 2010 in the article “Effect of Pulsing in Low-Level Light Therapy” and a dark period between two pulses between 50ms and 200ms, as stated by T. Karu in 2001 in the article “Studies on the Action Specifics of a Pulsed GaAlAs Laser (λ = 830nm) on a Cell Culture”. The main emission modes of the THEAL THERAPY meet the criteria needed to trigger photobiomodulation.

**EMISSION MODES BASED ON RESEARCHES**

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The laser emission focuses on a single high-energy pulse, the dosage of which is precise and effective. To ensure greater efficiency, the amplitude of the single pulse is adjustable by the operator, so that it always offers targeted action.

In the wide range of available emission modes, THEAL THERAPY preserves the modes that have always been present in Mectronic devices, ensuring continuity with the traditional methods.

**TEMPERATURE CONTROL SYSTEM**

In order to maximize the therapeutic results and ensure complete control of the therapy making it safe and effective, Mectronic has designed and patented an advanced tissue thermal control system.

Thanks to this advanced system, THEAL THERAPY is applicable to multiple pathologies of the musculoskeletal system of patients with different phototypes and different tissue types in an effective and safe way, making THEAL THERAPY even more unique and close to the needs of operators and patients.

Thanks to four different working modes and the ability to set one to two thermal thresholds, the operator can maximize therapeutic performance in total safety. The intuitive and constant feedback provided by the device and the innovative polychromatic LED system integrated in the handpiece guarantee practicality and high control of the therapy.

In addition, thermal control allows treatments within specific thermal thresholds to maximize therapeutic results and activate in the best possible way the photobiomodulation.

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**TRADITIONAL MODES**

In the wide range of available emission modes, THEAL THERAPY preserves the modes that have always been present in Mectronic devices, ensuring continuity with the traditional methods.

**Single Pulse**

The laser emission focuses on a single high-energy pulse, the dosage of which is precise and effective. To ensure greater efficiency, the amplitude of the single pulse is adjustable by the operator, so that it always offers targeted action.

**Burst**

This mode is particularly indicated in recurrent pathologies where chronic algia is predominant. Pulse sequences allow rapid interarticularis neurogenic action and restoration of cellular homeostasis.

3 Different ways to adapt therapy to the acute phase, optimizing pro and anti-inflammatory action, increasing biostimulation with less thermal impact. These modes allow optimization of the laser emission according to the phototype.
Activation and control of the therapy are closely related to the handpiece and the applicators that are used. For this reason, Mectronic has redesigned ergonomics and redesigned the handpiece functionality for even simpler and more effective therapy.

The innovative Light Blade handpiece features patented magnetic technology and can be expanded with 10 different applicators to satisfy every therapeutic need. Furthermore, Light Blade recognizes the selected applicator and adapts and optimizes the therapy depending on the choice.

Light Blade allows the operator to activate the laser emission directly from the handpiece by simply pressing the new and practical finger switch. In addition, Light Blade incorporates a polychromatic led system that provides real-time feedback to the operator on the course of the therapy, maximizing control and safety of the therapy session.
To respond to the needs of the therapist, Mectronic has implemented THEAL THERAPY with an innovative, completely new and effective therapy management system. Now the operator has many features for a highly safe and effective therapy, studied in the smallest detail.

**ADVANCED THERAPY MANAGEMENT**

The revolutionary Lambda Mixer system has been designed for the selection of wavelength combination. Until now the wavelength mix was defined and could not be changed, now the operator has control thanks to the Lambda Mixer.

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**TARGET TISSUE SYSTEM**

Target Tissue System is a completely new system, which allows adaptation of the therapy, the wavelength and the emission mode, according to the target tissues to be treated - maximizing therapeutic results.

**WAVE CREATOREFFECT FINDER**

The innovative system which allows the creation of personalized emission modes. The emission of high intensity laser of a mix of wavelengths which is modulated associating an emission mode which can be different for each wavelength, as required.

Effect finder is a unique advanced system which allows the desired effect or effects to be selected (Anti-edema, Analgesic, Biostimulant, Anti-inflammatory and Decontracting), automatically changing the wavelength mix and emission mode.

**RANGE OF POWER**

The endless potential of THEAL THERAPY increases with the ability to change the power range. This revolutionary and unique methodology represents the meeting point between low energy laser therapy (LLLT) and high intensity laser therapy.

**THERMAL CONTROL**

Thanks to advanced IR thermal control, THEAL THERAPY can be used for many pathologies concerning the muscular and skeletal system of patients with different phototypes and different tissue types, safely and effectively.
THEAL THERAPY is the innovative laser phototherapy method which adapts to the characteristics of the patient and the specific pathology, for this reason the devices which deliver THEAL THERAPY are fitted with the revolutionary Lambda Mixer system to select the wavelength mix. To maximise therapeutic results and respond to many different therapies, you need to be able to balance different wavelengths in order to obtain the perfect mix.

Lambda Mixer is the tool that lets you create custom mixes of wavelengths through a simple and intuitive panel. The possible configurations are endless and allow the therapy to adapt perfectly to the different types of patients and the various pathologies. Before now the wavelength mix was fixed and could not be changed, today control is in your hands with the Lambda Mixer of THEAL THERAPY.

Wave Creator is the innovative system which allows the creation of custom emission modes to maximise the therapeutic results. The emission of high intensity laser of adjustable mix of wavelengths is modulated associating emission modes, which can be selected for each wavelength according to requirements. It is possible to choose from many standard emission modes, or create one manually with a lot of parameters. The operator can save the created modes and the emission mode mix. Thanks to Wave Creator, therapy is even more flexible and effective.
TARGET TISSUE SYSTEM

THEAL THERAPY features many new functions aims at optimizing therapy, making it safe, practical and effective. The Target Tissue System is a completely new feature which allows the therapy, the wavelength mix, and the emission mode to be adjusted according to the target tissue to be treated.

In fact, the Target Tissue System allows the operator to select the type of tissue with which they want to interact (nervous, osteoarticular, tendon/ligamentous, muscular, connective-myofascial and epithelial) and the physico-chemical effect they want to generate. Once the desired configuration is set, the therapy will adapt to the required requirements. This way it is possible to manage the best treatment based on specific needs of the patient and the pathology.
TEMPERATURE CONTROL SYSTEM

Another new feature of THEAL THERAPY is the real-time control of the tissue temperature during treatment. It is possible to treat a range of pathologies which affect the musculoskeletal system of patients with different phototypes and different tissue types, effectively and in complete safety, thanks to the energy modulation and the real-time control of the temperature of the tissue. Furthermore, the temperature control feature allows THEAL THERAPY treatments to be carried out within specific thermal limits, maximizing therapeutic results.

All this is possible thanks to the advanced system designed and patented by Mectronic: the Temperature Control System. This innovation maximizes therapeutic results and ensures full control of therapy in total safety, making THEAL THERAPY the perfect method to meet the needs of operators and patients.

A RANGE OF UNPRECEDENTED POWERS

Power allows you to transfer energy to biological tissues in time necessary to get beneficial effects.

THEAL THERAPY is the innovative therapeutic method that expands the phototherapy application possibilities by providing a wide range of power values, representing the meeting point for Low Level Laser Therapy (LLLT) and High Level Laser Therapy (HLLT).

Thanks to the innovative StarLight Pentax and Starlight Ennax laser heads, and thanks to the innovative emission control system, THEAL THERAPY allows laser light to be delivered with different mixes of wavelengths and powers ranging from 10 mW to dozens watts.
Effect Finder is an automatic system that directly affects the pathological problem and allows you to adapt the therapeutic parameters accordingly to the desired effect. This system allows you to select one or more desired effects between anti-edema, antalgic, biostimulant, anti-inflammatory and decontracting, further customizing the therapeutic parameters according to the specific characteristics of the patient.

Thanks to Effect Finder it is even easier and more practical to maximize the desired effect or therapeutic effects.
THEAL THERAPY features a pathology library with over 90 therapeutic protocols, subdivided by phase, for the treatment of the most common pathologies. The therapeutic protocols in the library have been studied according to the different composition of tissues, and adapt according to the phototype and the age of the patients to be treated.

It also features specific therapeutic protocols to obtain the five main effects of THEAL THERAPY: Biostimulant, Analgesic, Anti-inflammatory, Anti-edema and Decontracting. When every mode is selected, the operator is guided through the setup of the most suitable treatment to achieve the desired effect.

Thanks to the interactive VAS Scale, integrated into the device, THEAL THERAPY allows the analgesic protocol to be adapted, setting the level of pain of the patient and monitoring it during the therapy.

Reference treatment videos are supplied to help explain the treatment.

INTERACTIVE PATHOLOGIES

THEAL THERAPY incorporates an innovative multifunctional core, featuring a new software and a new user interface, to offer operator greater convenience. Equipped with multiple features and customizations, MecOS 3.0 OMNIA is the most advanced, comprehensive and intuitive control software.

A TECHNOLOGICAL HEART
Thanks to the complete pathological library, it is possible to select the therapeutic protocol based on the condition of the disease: Acute, SubAcute and Chronic. For each selected protocol, you will be shown, via pictures and videos, how to intervene on the area to be treated. Additionally, the therapist can monitor the patient’s level of pain thanks to the VAS Scale, automatically adjusting the parameters of the therapy.

Another important factor for proper and safe therapy is the patient’s phototype. The melanin present in the skin is a chromophore that absorbs part of the laser radiation; for this reason, THEAL THERAPY allows you to set the patient’s phototype to be treated by automatically adjusting the parameters of the therapeutic protocol to make it safe, effective and performing.

The different therapeutic protocols have been studied in such a way as to take into account differences in tissue composition. For this reason, the operator can select the age range to which the person to be treated belongs. In addition, you will be asked to indicate the somatotype of the patient by choosing between Endo, Meso and Ecto.

THEAL THERAPY has a simple and intuitive editor for creating custom protocols, allowing you to build protocols with up to 5 distinct phases by defining all the parameters of the therapy. Protocols are easily customizable through the innovative and practical graphical interface of the editor, allowing you to simultaneously monitor the values of all phases and change them as needed.

To ensure the correct therapeutic dose and greater control of the energy transferred to tissues, THEAL THERAPY provides a simple and practical tool for calculating the precise size of the area to be treated.
THEAL THERAPY is equipped with rich and practical Guides in the device software to provide all the information needed by the operator: from the in-depth study of THEAL THERAPY, laser interaction with biological tissues, device safety, contraindications and more.

ON BOARD GUIDE

Thanks to the new graphical interface, the new Support feature has been implemented. This feature allows you to access a window that highlights and explains the features on the screen and how to interact with them to guide the operator to even simpler, practical, and intuitive therapy.

SUPPORT FUNCTION

You can constantly upgrade your device with a simple USB stick, ensuring you always implement the most advanced method and the latest generation protocols for safe, performing, and effective THEAL THERAPY.

STAY UPDATED

The THEAL THERAPY devices are equipped with a calibration system, which allows you to monitor at all times the laser power output from the device, as required by CEI EN 60601-2-22, and also the advanced and complete functionality control system of the device. In case of malfunctions or problems, thanks to a series of automated and guided tests, it is possible to detect a possible cause of the malfunction, in order to solve the problem quickly and have a perfectly functioning device.

CHECK TEST
**iLux XP 16 W**

- **650 nm** - 2 W
- **810 nm** - 7 W
- **1064 nm** - 7 W

Dimensions:
- 300 x 250 x 170 mm (without trolley)
- 300 x 250 x 1020 mm (with trolley)

Weight:
- 5.5 kg (without trolley)
- 20 kg (with trolley)

**iLux XP 30 W**

- **650 nm** - 2 W
- **810 nm** - 8 W
- **980 nm** - 10 W
- **1064 nm** - 10 W

Dimensions:
- 300 x 250 x 170 mm (without trolley)
- 300 x 250 x 1020 mm (with trolley)

Weight:
- 5.5 kg (without trolley)
- 20 kg (with trolley)
**COMING SOON**

**Ixyon XP 50 W**

- 650 nm - 2W
- 780 nm - 10 W
- 810 nm - 10 W
- 980 nm - 10 W
- 1064 nm - 10 W
- 810 nm - 10 W
- 1210 nm - 8 W

**Dimensions**
- 300 x 450 x 250 mm (without trolley)
- 300 x 450 x 1070 mm (with trolley)

**Weight**
- 7 kg (without trolley)
- 22 kg (with trolley)

**COMING SOON**

**Ixyon XP 92 W**

- 450 nm - 5W
- 650 nm - 4W
- 780 nm - 15 W
- 810 nm - 15 W
- 980 nm - 15 W
- 905 nm - 15 W
- 1064 nm - 15 W
- 810 nm - 10 W
- 1210 nm - 8 W

**Dimensions**
- 300 x 450 x 250 mm (without trolley)
- 300 x 450 x 1070 mm (with trolley)

**Weight**
- 7 kg (without trolley)
- 22 kg (with trolley)
### TECHNICAL SPECIFICATIONS OF THEAL THERAPY PRODUCTS

<table>
<thead>
<tr>
<th>Technology</th>
<th>Meترو nic’s Own MecOs 3.0 OMNIA Real-Time Operating System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide Light</td>
<td>650 nm - 3mW</td>
</tr>
<tr>
<td>Emission</td>
<td>Continuous (CW), Pulsed, Superpulsed, E²C (patented stochastic mode), AntiInf, HPM and Dimmer</td>
</tr>
<tr>
<td>Personal Emission</td>
<td>Wave Creator</td>
</tr>
<tr>
<td>Operation Mode</td>
<td>Manual, Single Pulse, Burst and Custom mode</td>
</tr>
<tr>
<td>Special Modes</td>
<td>Joule Mode, Timer Mode, Trigger Point Mode, Effect Finder, Tissue Target System, and Temperature Control mode</td>
</tr>
<tr>
<td>Effects Mode</td>
<td>5 specific emission modes to maximise the 5 main effects of THEAL THERAPY: Biostimulant, Analgesic, Anti-inflammatory, Anti-edema, and Decontracting</td>
</tr>
<tr>
<td>Pathologies</td>
<td>Over 90 therapeutic protocols with interactive illustrations and protocols sub-divided by phase</td>
</tr>
<tr>
<td>Calibration</td>
<td>Graphic and acoustic control system for laser emission at handpiece exit in accordance with norm CEI EN 60825-1</td>
</tr>
<tr>
<td>Display</td>
<td>Colour TFT 6” Touch-screen</td>
</tr>
<tr>
<td>Supply</td>
<td>100 - 240V 50 - 60Hz</td>
</tr>
<tr>
<td>Absorption</td>
<td>160 VA (iLux XP) - 250 VA (ixyon XP)</td>
</tr>
<tr>
<td>Laser Class</td>
<td>IV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Beam Divergence</th>
<th>20°</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puls Width</td>
<td>1 - 1000 ms</td>
</tr>
<tr>
<td>IP Classification</td>
<td>IPX0 device/ IPX0 handpiece/IPX4 pneumatic footswitch</td>
</tr>
<tr>
<td>Terms operating</td>
<td>0 - 30°C</td>
</tr>
<tr>
<td>Terms transportation and storage</td>
<td>10 - 55°C</td>
</tr>
<tr>
<td>EMP Maximial emission permit on skin</td>
<td>5600 W/m²</td>
</tr>
<tr>
<td>EMP Maximial emission permit on cornea</td>
<td>9 W/m²</td>
</tr>
<tr>
<td>DNRO Nominal Distance of Ocular Risk</td>
<td>8.4 (10W); 10.5 (30W); 13.5 (50W); 18.5 (90W)</td>
</tr>
<tr>
<td>Conformity</td>
<td>IEC/IEC 60601-1; IEC 60601-1-2; IEC 60601-2-22</td>
</tr>
<tr>
<td>Certification</td>
<td>CE0051</td>
</tr>
<tr>
<td>Directive 93/42</td>
<td>Classification IIb</td>
</tr>
</tbody>
</table>

### Absorption
- 160 VA (iLux XP) - 250 VA (ixyon XP)

### Special Modes
- Joule Mode, Timer Mode, Trigger Point Mode, Effect Finder, Tissue Target System, and Temperature Control mode

### Calibration
- Graphic and acoustic control system for laser emission at handpiece exit in accordance with norm CEI EN 60825-1

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- Colour TFT 6” Touch-screen

### Supply
- 100 - 240V 50 - 60Hz

### Absorption
- 160 VA (iLux XP) - 250 VA (ixyon XP)

### Laser Class
- IV
Mectronic presents the new training plan, designed to gather all the events dedicated to Mectronic therapies. The purpose is to divulge the most advanced methods to keep knowledge up to date.

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12. “Examination of the near infrared spectra of mitochondrial cytochrome c oxidase: Implications for noninvasive in vivo monitoring of tissue” (Kulikov, F. Nicholas, E. Cooper – 2004)
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19. “Short-term effect of Shockwave Therapy, Temperature controlled High Energy Adjustable multi-mode emission Laser (THEAL Therapy) or stretching in Dupuytren’s disease: a prospective randomized clinical trial.” (Notarnicola Angela, Forzatti F. Bari, Italy)