

LASETRON CARD

Infrared rays Biostimulator



MANUAL

User Instructions

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ATTENTION:

**READ ATTENTIVELY THE MANUAL
BEFORE THE USE**

Cap.1 – INTRODUCTION

LASETRON CARD belongs to the new line of electromedical instruments for physiotherapy. The reduced dimensions, the facility of use and the versatility are the principal characteristics of this innovative line of products.

1.1 – What is LASETRON CARD

The constant research in the sector of the medical devices has brought to the creation of a new system for the infrared therapy constituted by the generator LASETRON CARD. In order to guarantee to the consumer the maximum reliability and safety in the respect of the actual Normative on the Safety of the Medical Devices, the generator assumes the assignments of control, while the software allows the generation of infrared light for therapeutic purpose in the treatment of the most common pathologies (muscular Contractures, Arthrosis, bedsores).

1.2 – Why use LASETRON CARD

LASETRON CARD contains inside all the technology necessary to produce the infrared light and to modulate its parameters, through the use of the presetted programs contained in its memory and the 10 free programs. Thanks to LASETRON CARD, therefore, it is possible to apply the infrared therapy with standard programs and to have the therapeutic sessions in relation to the demands of the patient.

1.3 – To whom turns LASETRON CARD

LASETRON CARD finds in the medical field (particularly physiotherapy) and in the home therapy the fittest environment to express completely its own potentialities. Nevertheless, for the simplicity of use, it is usable, over than from physicians and rehabilitation therapists, also from who desires to deal his own physical comfort in domiciliary circle, thanks to the facility of use and the versatility of the product.

Cap.2 – INDICATIONS AND SIDE EFFECTS

The infraredtherapy produces on the fabrics a thermal effect which has, as secondary effects, the increasing of the metabolism of the fabrics, the vasodilatation of the capillaries and of the arteries and a muscular relaxation.

2.1 – Indications

The most common pathologies which can be treated with the infraredtherapy are :

- Tendinitis (achillea, epicondylitis, pubis pain, leg of goose, biceps);
- Bursitis;
- Contractures, stretchings and muscular sprain;
- Distorsions;
- Fractures;
- Hematomas and bruises;
- Arthritises and arthrosis;
- Cellulitis;
- Ulcers and bedsores;
- Acne, warts, etc.

2.2 – Controindications

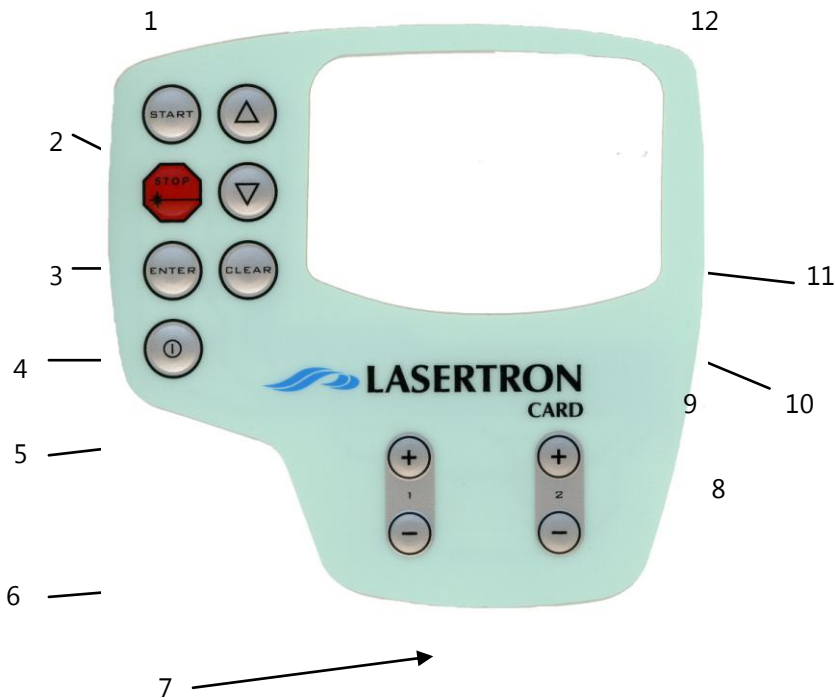
The infraredtherapy is not suitable on subjects with:

- pace-maker;
 - neoplasie (tumori);
 - pregnancy in progress;
 - epilepsy;
 - photosensitivity
- children (areas of growth)

2.3 – Side Effects

- Cutaneous burns if the intensity is notable and if there are present disorders of the sensibility
- Lipothimic episodes can arise in persons with a heart disease.
- Do not address the rays on the head because there could be the possibility of heatstrokes. If applications are effected on the cervical rachide, protect the head with a headgear.

Cap.3 – OPERATION



- | | |
|--|---|
| 1 - Display LCD | 7 - output for the cable |
| 2 - ENTER: it confirms selection | 8 - PAUSE STOP: interruption / end |
| 3 - UP: go on | 9 - (+) / (-) channel 2: modulation intensity |
| 4 - (+)/(-) channel 1: update. Modulation | 10 - DOWN: back |
| 5 - START: beginning of the program | 11 - CLEAR: it cancels / it returns back |
| 6 - (I) ON/OFF: it turns on / it turns off | 12 - output for the power supply |

3.1 - Connection to the electric net

LASERTRON CARD can be used with battery or fed to electric current, connecting the power supply to a normal taking of tide 230V and to device through the output placed in the superior part.

3.2 - Connection of the handle

Before turning on the instrument, connect the handle to the output placed in the inferior part of the device through the connector of the cable. To insert the connector rotate it until the connections coincides with the output; once inserted, screw to fix well the cable to the instrument

3.3 - Application of the handle

Place the head of the handle directly on the skin in a perpendicular way (90°); hold the handle during all the application. For the techniques of application see section Applications.

– Switch on of the device

Per accendere LASETRON CARD premere il pulsante (I) ON/OFF sulla tastiera dell'apparecchio. Sul display viene visualizzato il messaggio di benvenuto con il nome e la versione del software; successivamente compare la schermata del Menù di Selezione Programmi posizionata sul primo programma preimpostato.

3.4 – Selection of the program

Select the program with the keys UP/DOWN (see section Programs) and confirm with ENTER.

3.5 – Starting of stimulation

To begin the therapy press START when the display visualizes > START > .

3.6 – Intensity of emission

The intensity of the emission of the handle is fixed. The dose, that is to say the total energy transferred to the body, is presetted and different in each program. It is possible to vary the dose with the keys (+) / (-) 2 (changing the dose you get a proportional adjustment of the Timer). The modulation 1/1, 1/2, 1/4 is shown beside the dose XX.Y and it can be changed with the keys (+) / (-) 1. With the modulation you can vary the intensity of issue of the handle from the maximum one (1/1), to an intermediary value (1/2) and finally to the last one (1 / 4).

ATTENTION: in case of pain or elevated heating of the treated zone, it is necessary to remove immediately the handle and to interrupt the therapy..

3.7 – Pause/ interrupt the therapy

If you want to interrupt the therapy before the term, press the key (I) ON/OFF for a few seconds continue press START); twice to finish the program and to return in phase of Programs selection.

3.8 – Switch off of the device

To switch off the device hold pressed the key (The) ON/OFF for some seconds. If after the expiration of a program the instrument is not used, it switches off automatically after few minutes. At the end of the session disconnect the cables from the device and put back all the accessories in the handbag. Preserve in fresh and dry place.

Cap.4 – INFRARED THERAPY

4.1 – Programs

LASETRON CARD has 10 presetted programs , ready for the use and of 10 free programs.

4.1.1 – Presetted programs

The presetted programs are listed in the following chart.

Chart for programs for LASETRON CARD

N° Prog.	Name on the display	Pathology to be treated
P.1	Inflammat.	Inflamations / Cervical / Backache / Sciatic
P.2	Contusion.	Contusions/ Hematomas / Edemas
P.3	Distors.	Distorsions (knee/ankle) / articular Pains
P.4	Arthritises	Arthritises / Arthrosis / Periarthritis of shoulder
P.5	Sprains	Contractures / straining / sprains / muscular Pains
P.6	Bursitises	Bursitises
P.7	Tendinitis	Tendinitis/Epicondilitis/Carpal Tunnel /Pubes pain
P.8	Cellulitis	Cellulitis / Swelling / Sore / Acne / Scars / Warts /
P.9	Acute pains	All the acute pains
P.10	Chronic pains	All the chronic pains

4.1.2 – Free programs

Pressing ENTER on "-----" it is possible to realize some sequences of therapy differentiated and personalized with the desired parameters. In this way the screen switches showing the Phases to set (from 1 to 4);select every Phase with the keys pointer UP/POINTER DOWN (always begin from the Phase 1). Confirming with ENTER you enter the formulation of the parameters of every phase; every voice is always selected with the keys Arrow UP/POINTER DOWN and you rule the value desired with the keys (+) (-). The available values for the parameters are summaries in the following chart.

NAME ON THE	PARAMETER	ADJUSTABLE VALUE
-------------	-----------	------------------

DISPLAY		
Timer	Duration of the phase	From 1 to 60 min.
Mod.	Frequency of Modulation	CONT, 1/2, 1/4

Selecting and confirming with ENTER , one of the memorized programs of the Menu appears the screen of use in which you can select one of the followings voices:

Perform + ENTER (to begin the program);

Change + ENTER (to modify the parameters and/o the Phases);

Cancel + ENTER (to cancel the program and to free the memory);

4.2 – Applications

For each application press the handle directly on the skin, always to 90° in comparison to the surface to be treated (perpendicular), so that to center the precise point in which the pain or the inflamed zone are warned. If pathology is superficial or cutaneous, hold the handle at 1-2 cms of distance from the skin; if the zone to be treated is deep, press the handle against the skin so that to approach the desired point

4.2.1 – Application for points

The head of the handle allows to treat a surface of some square centimeters. If the zone to be treated is more extended with diffused pain/inflammation/swelling (ex. cervical, back pain, cellulitis, etc.), apply the most proper program positioning the handle on a point of the zone to treat; at the end of the program move the handle on an adjacent point and restart the program. Repeat the operation so that to apply the therapy on the whole interested surface.

4.3 – Sessions


Apply the infrared therapy 3-4 times a week at alternate days up to the disappearance or appreciable diminution of the pain. It is possible that with some particularly acute inflammations, in the first sessions the pain intensifies and the inflammation slightly increases; in this case increase the frequency of the sessions up to 5-6 a week.

NOTE: if after 10-15 sessions pain persists contact an expert physician.

Cap.5 – POWER SUPPLY



5.1 – Use of the power supply

The Pocket can be fed both with the tension of net to 230V 50Hz, through the external power supply furnished in endowment (see Sec. Technical characteristics), both through a rechargeable inside Ni-Mh battery from 6V-1,8 Ah which, in normal use conditions, has an autonomy of some hours. The autonomy of the battery depends on the type of used programs, from the intensity of setted current and from the state of aging of the same battery.



 For the correct identification of the battery and the power supply furnished in endowment of base, consult the sect. "Technical characteristics". Neither the power supply, neither the battery must be replaced from not experienced personal and above all with different devices from those furnished from the house builder.

5.1.1 Indication of the battery level

When Pocket is fed by the battery on the display appears the symbol Battery.

Legenda:  - indication of charged battery  - indication of discharged battery

When the state of unloaded battery is signaled , it is opportune to effect a complete recharge. For the guardianship of the same battery the Pocket is endowed with a system of auto-turning off that, to the state of completely unloaded battery (after some minutes that the symbol battery flashes empty), it extinguishes the instrument.

 The symbol Battery appears only if the instrument is disconnected by the electric net, while in contrary appears also the symbol Net .

5.1.2 Recharge of the battery

To charge the battery of the Pocket:

- 1- **Switch off the** Pocket;
- 2- **Connect the power supply** to the net and to the Pocket;
- 3- **Leave the device in charge** (on the display appears the flashing symbol of the battery) until the symbol of battery remains full; a complete cycle of recharge lasts around 3 hours but it is advisable to reload for 8-10 hours or the whole night);
- 4- **To disconnect** the power supply from the net and from the Pocket.

ATTENTION: when the battery is completely unloaded (ex. when the instrument has not been used for a long time) it is possible that at the beginning of the recharge the display doesn't switch on immediately; in this case leave the device in charge

for 2-3 hours than detach and attack again the power supply from the device. If the writing Reloads doesn't appear try again after 30 minutes. If the battery doesn't appear it is damaged and it is necessary to replace it.

5.1.3 Suggestions for the guardianship of the battery

The life of a rechargeable battery, is tied up to the number of cycles of recharge/discharge to which it is submitted and to how these cycles are effected. Here below we furnish some suggestions to increase the life of the battery:

1. **in the case the Pocket is not used frequently** , load the battery at least once a month. To prolong the life of the battery We recommend to reload only when the symbol of unloaded battery flashes. We recommend to work connected to the electric net when it is possible in order not to submit the battery to the cycles of discharge/recharge not necessary.

5.2 - Substitution of the battery

The index of exhaustion of the battery is the duration after a complete cycle of recharge. When the battery lasts less than an hour or it doesn't allow to finish a program it must be replaced with a new one. For the substitution of the battery address to a Center of Assistance New Age Italia, where the battery can be replaced maintaining the safety of the instrument and where are able to digest the exhausted battery.



Never reverse the polarity of the connections of the battery, punishment the destruction of the electronic circuits.

5.3 - Precautions for the use of the battery

- (1) Do not to throw the exhausted battery with the ordinary wastes, but deliver it to authorized personal to its disposal.
- (2) Do not to open neither to throw in the fire the battery.
- (3) Do not to short-circuit the terminals.
- (4) avoid to provoke sparks or flames, above or around the battery.
- (5) in the case the inside electrolyte comes in contact with the skin, or with the cloths, wash immediately with water.
- (6) in the case the inside electrolyte comes in contact with the eyes, wash abundantly and consult immediately a physician.

Cap.6 – MAINTENANCE

6.1 – Handle

The handle and connection cable must be periodically checked for verifying that there are no cracks; to clean the handle with a moist cloth and dry with a clean and dry cloth.


6.2 – Device and power supply


To clean the device and the power supply cable we advise to use a moist cloth. Don't use in any case liquids, because they are not protected from their entry (IP20).

6.3 – Immediate maintenance

We recommend you to perform the controls only from New Age Italia or from the specialized personnel delegated if:

- the instrument has been submitted to mechanical external solicitations, as serious falls;
- the instrument has been submitted to strong overheating, for example, if left next to intense heat sources;
- you doubt that some liquids can be penetrated inside;
- the wrap or other parts of the instrument are damaged, broken or lacking; the functionality of the instrument appears altered.

 To the goals of the safety we recommend you not to operate with accessories (for example handle and power supply) different from the ones furnished as endowment of base.

 The frequency of maintenance, of functional control and verification of correspondence to the safety norms EN60601-1 for the medical devices, to perform with secur-tester, is annual. The useful life of the tool is guaranteed only from the firm if such maintenance is regularly effected.

ATTENTION: We recommend you to perform the controls only from New Age Italia or from the specialized personnel delegated by this Firm. The instrument in maintenance can be sent directly to the assistance laboratories or delivered to the reseller by which it has been purchased.
















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Cap.7 – INSTRUCTIONS

-  Pay particular attention in the employment of the handle for not compromising the effectiveness of the treatment.
-  Use the device only with electric systems conforming to the Safety Current Regulations
-  The instrument has a degree of protection IP20 (to see sec. "Technical characteristics") and it dissuades the use in the immediate proximities of liquids, because not protected from their entry.
-  We would not recommend to use in the immediate proximities of cellular telephones (keep them at least to some meters of distance).
-  Operate in proximity (for example 1 meter) of an instrument for short waves therapy, or microwaves, can produce instability in the output of the stimulator.
-  Don't simultaneously connect the patient with the LASETRON CARD and with a surgical instrument HF, to avoid dangers for the patient and for the same instrument.
-  Don't use in presence of equipments for the monitoring of vital parameters
-  The tool works according to its specifications, if the environment is maintained to an inclusive temperature between the 5° and the 40° C and with an inferior humidity to the 80%. The same conditions have to be maintained during the transport and the storage.
-  In case of malfunctions and breakdowns, it is opportune to send the tool exclusively to the house builder.
-  We recommends not to operate in proximity of inflammable substances
-  Don't use different accessories from those furnished in endowment.
-  It is important to inform the patient about the type of feeling to perceive during the therapy, such as to intervene immediately, interrupting the session through the commands of the device or removing the handle, in the case the perception is not the correct one anymore.
-  If the power of emission or its regulation causes elevated heating or pain in the treated zone it is necessary to reduce immediately the intensity of stimulation or eventually to interrupt the application.
-  Keep away from children.
-  **Don't direct the handle toward the eyes**

Cap.8 – TECHNICAL CHARACTERISTICS

8.1 – Supply

Power supply: L'Arson Nuova mod. KC 135-120100

PRI: 230V ~ 50Hz SEC: 12V- 1A

Internal supply: rechargeable battery Ni-MH 6V-1,8 Ah

8.2 – Output characteristics

First Source : 5 diods AlGaAs

Laser class: IIIb

Max intensity of the Power (P) : 4 x100 mW/sr + 1 x 135mW

Second source: 9 diods ir AlGaAs

Laser class IV

Max intensity of the Power (P) : 4 x225 mW/sr + 5 x 235mW

Frequency of the impulses (f): 100 Hz

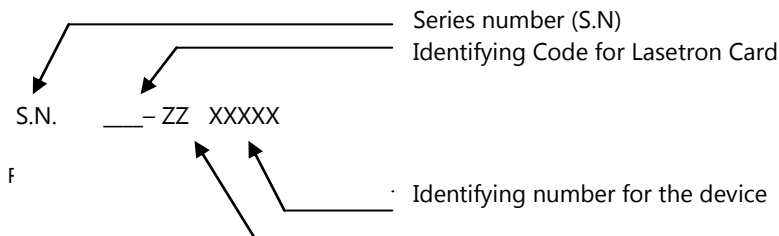
Kind of emission : Continuous (1/1) o modulated ON/OFF (1/2, 1/4)

8.3 – Other characteristics

- Dimensions: 175x165x100h [mm]
- weight: 1000 [g]
- Class: II Tipo: BF
- Classification in comparison to the entry of liquids: IP20
- Safety in presence of inflammable anaesthetic gas: it is not of category AP or APG
- Device for operation: continuous

Built according to the norms:

- EN 60601-1 (1998) – Elettromedical devices : General norms for the safety
- EN 60601-1-2 (2003) – Collateral norm: Electromagnetic compatibility - Prescriptions and tests
- EN 60601-1-4 (1997) – Collateral norm: programmable elettromedical systems
- EN 980-2003 ed EN 1041 – Symbology for elettromedical instruments



Cap.9 – SYMBOLS



DEVICE CLASS II



DEVICE TYPE BF



ATTENTION, CONSULT THE ATTACHED DOCUMENTATION



THIS DEVICE IS MARKED AT THE SENSES OF THE
DIRECTIVE CEE 93/42.

Cap.10 – BASIC ENDOWMENT AND ACCESSORIES

LASETRON CARD è fornito con una dotazione di base per le principali applicazioni. Per sostituire materiale danneggiato, consumato o terminato è possibile acquistare gli accessori a parte.

10.1 – Basic endowment

LASETRON CARD is completed with :

Device

Power supply

Handle at 5 diods

Manual

Case

10.2 – Accessories and consumption material

Handle at 5 diods

Power supply

Cap.11 – BIBLIOGRAPHY

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