
ACTIVE MEDICAL DEVICE
FOR STIMULATION BY ELECTROMAGNETIC FIELD

USER MANUAL

TRIOMED UNIVERSAL

Version 3

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The following signs have been used in the Manual and for labelling the device:



Manufacturer



Non-ionising radiation



Device serial number



Not for general (household) waste



Important information about the device or its operation



Keep dry!



Consult instructions for use



Fragile, handle with care!



Caution, consult accompanying documents



On/off (press/press)



Point of contact with the body of the patient



Class II equipment

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1. PURPOSE

The TRIOMED UNIVERSAL device has been designed for maintaining and strengthening the health of the elderly as well as for treating and preventing various pathological conditions by stimulating the skin with low intensity (up to $10 \mu\text{W}/\text{cm}^2$) impulse electromagnetic radiation (EMR) in the millimeter (MM) and (up to $2 \mu\text{W}/\text{cm}^2$) infrared (IR) band.

The external radiators provide the EMR stimulation in the frequency band between 40 and 75 GHz (wave length between 7,5 and 4,0 mm) as well as IR radiation.

The device is recommended for use primarily for restorative treatment (rehabilitation) of patients with various socially significant diseases.

Restorative treatment (rehabilitation) is carried out irrespective of the duration of the disease and aims to eliminate its consequences, prevent exacerbations and relapses, normalise (maintain) disturbed physiological functions, restore (optimise) physical capacity, increase the functional reserves of the body and improve the quality of life in medical terms. MM therapy can be used in comprehensive programmes at early and later states of restorative treatment of diseases and injuries, during rehabilitation and in the case of chronic diseases during a non-acute period.

The device is easy to operate, safe, secure and lightweight and can be used in-patient and out-patient settings (rehabilitation centres, rehabilitation departments), by outreach teams and independently at home in consultation with the treating physician.

In terms of its utilisation the device is classified as a product of multiple cyclic use.

2. MECHANISMS OF THERAPEUTIC EFFECTS

2.1. General mechanisms of action

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Electromagnetic waves in the millimetre range have a low capacity to penetrate biological tissues (0,2-0,6 mm), are almost fully absorbed by the upper layers of the skin and by the water, hydrated proteins and collagen fibres contained in them and do not have a thermal effect. At the cellular level, electromagnetic waves in the MM range activate the metabolism through calcium-dependent processes. The response of the body is manifested in the skin and visceral reflexes as well in the general reaction aimed at strengthening the adaptation, adjustment and defence capacity. The healing effects are achieved through the central and peripheral nervous system as well as through the protective and regulatory systems of the body. Electromagnetic waves in the MM range thus regulate the cellular biochemical activity and physiological functions of the body in general.

The effects mentioned above are clinically manifested in anti-inflammatory, analgesic and anti-oedematous action, improved tissue regeneration, increased non-specific resistance of the body through stimulation of the immune system, in enhanced systemic and regional hemodynamics, normalised regulation of the autonomic nervous system and in anti-stress action.

IR radiation of the band used penetrates 1 cm beneath the skin and is absorbed by acceptor molecules and cellular membranes.

The mechanisms of impact of IR radiation on biological tissues comprise the totality of molecular and cellular effects including the local activation of energy-binding processes

in pathological foci as well as the launching of a set of adaptation and compensatory reactions arising in response to the local stimulation at the cellular and molecular level.

The therapeutic effects include anti-inflammatory, lymph-draining and vasodilative action. The device accelerates regression of inflammatory processes and improves tissue regeneration, local resistive capacity and anti-infection defense.

2.2. Mechanisms of specialised action of MM radiation

Responses of biological objects (tissues, organs, organ systems) to EMR exposure in the MM band are specific. The direction of the MM therapy depends on the method of use (the location and duration of stimulation), the patient's initial condition and the characteristics of the MM stimulation.

An important role is played by the modulation of the carrying MM radiation with the low-frequency signal corresponding to the physiological rhythms of the organs, systems and the body as a whole. Complex modulated signals demonstrate a great harmonising potential and biological effect and at the same time have a lower mean power.

Each therapeutic programme uses several low-frequency modulations which have a positive directed impact on the cells of various organs as well as on blood and lymphatic vessels thus raising the efficiency of treatment.

Clinical tests carried out over many years using the methods of molecular medicine at the Saint-Petersburg Institute of Bioregulation and Gerontology in cooperation with the centre of International Association of Gerontology and Geriatrics have shown that the use of the MM therapy through Triomed devices in elderly and old patients with various socially

significant diseases helps normalise the oxidant, lipid, opioid and glucocorticoid balance, reduce the number of exacerbations, hospitalisations and admissions for emergency medical care as well as improve the emotional status and certain parameters of the quality of life.

IR radiation of the band used penetrates 1 cm beneath the skin and is absorbed by acceptor molecules and cellular membranes.

The mechanisms of impact of IR radiation on biological tissues comprise the totality of molecular and cellular effects including the local activation of energy-binding processes in pathological foci as well as the launching of a set of adaptation and compensatory reactions arising in response to the local stimulation at the cellular and molecular level.

The therapeutic effects include anti-inflammatory, lymph-draining and vasodilative action. The device accelerates regression of inflammatory processes and improves tissue regeneration, local resistive capacity and anti-infection defence.

3. INDICATIONS AND CONTRAINDICATIONS FOR USE

3.1. Indications

MM therapy can be indicated in the following cases:

- **colds, influenza, acute respiratory infections, decrease in general immunity during recovery and rehabilitation after diseases:** for non-specific stimulation of the immune system, including to achieve a general invigorating effect;
- **chronic heart failure (ischemic heart disease, stable FC I-IV stenocardia; I-II degree arterial hypertension; rhythm disturbance: rare ventricular arrhythmia, rare supraventricular ectopy** to increase the antioxidant capacity of the muscles, enhance the rheological properties of the blood, stabilise the processes of cholesterol metabolism, reduce the intensity of immune inflammation, improve the endothelial function, normalise lung ventilation during physical exertion, develop light peripheral vasodilatation, normalise the arterial blood pressure and the heart rate variability;
- **I-II degree arterial hypertension:** to decrease high arterial blood pressure by adjusting sympathetic-adrenal and parasympathetic influences on the regulation of the heart function, improve the overall health;
- **organic diseases of the central nervous system (ischemic stroke, multiple sclerosis, internal brain injury, traumatic encephalopathy):** to improve the rheological properties of the blood, normalise cognitive and motor functions (increase the precision of simple and complex sensory-motor actions, improve intellectual and mnemonic functions, enhance focusing), raise the endurance of nervous processes and restoration of nervous conductivity;

- **cerebral circulatory deficiency and mild and medium discirculatory encephalopathy:** to reduce headache, dizziness and buzzing in the ears, lower high arterial blood pressure, alleviate focal neurological symptoms (pyramidal, cerebellar, Parkinson's syndrome) and mental disturbances. Has a particularly positive impact on the sleep, emotions and the condition of higher cortical functions;
- **problems with vessels in the lower extremities (chronic venous insufficiency, varicose vein disease, post-thrombotic syndrome):** to improve local microcirculation by increasing the permeability of blood capillaries, enhance the rheological properties of the blood and intensify the regional lymph and blood flow;
- **chronic inflammatory diseases of the respiratory tract (chronic bronchitis, chronic obstructive pulmonary disease, asthma):** to improve bronchial permeability, normalise metabolic activity, stabilise the membranes of phagocyteised neutrophils, lower the intensity of peroxidation of lipids, lower the non-specific hyperactivity of the bronchi, improve the functions of external respiration, activate the discharge of bronchial mucus, reduce the frequency of coughing fits;
- **chronic diseases of the spine and joints (degenerative spine diseases, osteoarthritis, spondylarthrosis):** to improve the mobility of the spine and joints, increase the amplitude of active movements in the joints (locomotor functions), reduce oedemas and relieve the pain syndrome;
- **gastroduodenal ulcers:** to relieve the pain syndrome and dyspeptic complaints, accelerate the healing of the ulcerous defect, alleviate psychoemotional problems;
- **diabetic polyneuropathy:** to reduce the severity of the pain syndrome and the sensation of numbness and burning, alleviate sensory disorders, improve

- microcirculation, help with psychoemotional problems;
- **climacteric syndrome:** to reduce the frequency and intensity of hot flashes, sweating, headaches and sleep disorders, increase physical capacity, normalise the oxidative status, arterial blood pressure and emotional condition;
 - **chronic prostatitis:** to relieve pain, reduce inflammation, normalise urination, restore erection and copulative function, alleviate psychoemotional problems;
 - **light depression:** for mild sedative and anti-stress effect, to lower irritability and psycho-emotional distress, to correct sleep disorders and raise spirits.

IR therapy can be indicated in the following cases:

- sluggish wounds and ulcers,
- chronic and subacute non-purulent inflammatory diseases of internal organs,
- burns and frostbites,
- diseases of the peripheral nervous system with the pain syndrome (myositis, neuralgia),
- consequences of musculoskeletal injuries,
- preparation of the skin zones for MM stimulation.



3.2. Contraindications:

- general contraindications to physical therapy;
- unknown diagnosis;
- idiosyncrasy to electromagnetic millimeter stimulation;
- febrile states of unclear aetiology;
- patients having an implanted device with autonomous power supply (in the area of the device installation);

In the case of diseases which pose a serious threat to life and health the device can be used only under the supervision of a doctor.

3.3. Recommendations for using external radiators

Therapeutic stimulation TRIOMED UNIVERSAL device is carried out using special external radiators exerting targeted impact on organs, tissues, organ systems and functional systems of the human body.

Radiators in the MM band have been developed on the basis of the generator of electromagnetic radiation in the MM band (international patent No. EE 05541).

IR radiator is based on the serial IR diode.

External radiator 1(Universal) is designed to restore optimal regulation which is the necessary condition for recovery of health. The stimulation of the hypothalamo-pituitary-adrenal axis ensures restoration of tissue metabolism, balancing of the sympathoadrenal and vagoinular systems, general invigorating and harmonising effect, increased adaptation potential and anti-stress resistance of the body as well as proper functioning of the organs by activating the regulatory mechanisms.

The radiator is used for 1st and 2nd degree pathological conditions accompanied by the disadaptation syndrome.

Recommended to be used as a treatment course.

External radiator 5 (IR)

Low-intensity IR stimulation allows to optimise the energy supply to the cells, normalise the system of intracellular regulation and intensify biosynthetic processes. It facilitates resonant absorption of energy by the cell helping improve metabolic processes and increase the energy efficiency of the cell in situations of oxygen deficiency.

The main indications for using infra-red radiation are: preparation of zones for MM stimulation, cicatricial changes in tissues, subacute and chronic non-purulent inflammatory diseases of internal organs, sluggish wounds and trophic ulcers, diseases of the peripheral nervous system with the pain syndrome, residual effects of burns and frostbites, autonomic dysfunctions, complications of diabetes.

The contraindications for using infra-red radiation are: benign and malignant neoplasms, active forms of tuberculosis, III degree hypertension, bleeding and II-III degree circulatory deficiency. Stimulation of the eyes is not recommended.

Stimulation should be carried out locally in the pathological focus (wounded surfaces, trophic ulcers, non-purulent inflammatory diseases, cicatricial changes), at the edge of the popliteal fold when the knee joint is bent on the inside , in the zone of the outer third of the subclavian area and in area between the 7th cervical vertebra and the 1st thoracic vertebra.

4. TECHNICAL AND OPERATIONAL CHARACTERISTICS

4.1. General technical characteristics

The device and radiators are produced without using any harmful chemical substances in compliance with the TRIOMED EU Ltd technical documents and meet the requirements of Directives 93/42/EEC and 2007/47/EC.

As far as potential risks of use are concerned, the device is classified as Class IIa equipment according to Directive 93/42/EEC and has been designed as a product with internal safe power supply.

The device consists of three parts (Fig 1):

- low-frequency electronic TRIOMED generator (power unit);
- external radiators 1 and 5 (other MM EMR radiators as well as the IR radiator can be purchased separately);
- standard cable (USB A – miniUSB B 5 pin).

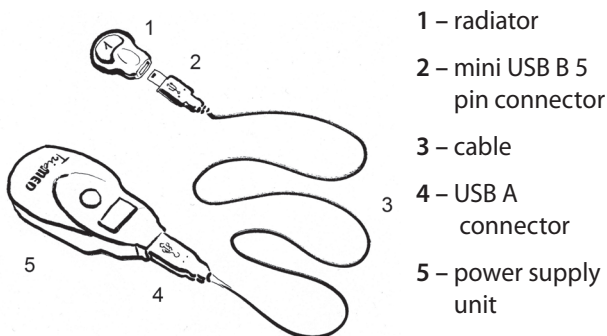


Figure 1. General view of the radiator and the cable

The radiators are connected to the power unit using the USB cable.

The software allows to automatically control all the functions of the device.

The external surfaces of the power unit and the external radiators are disinfected using a 3% solution of hydrogen peroxide or a 1% water solution of chlorhexidine.

The device includes two LR06 batteries (AA type).

No conservation during the life cycle is required. If the device is not used for a long time, it is recommended to take the batteries out and keep them separately.

No special safety measures are required.

The main technical characteristics of the TRIOMED UNIVERSAL device are given in Table 1 below.

Table 1		
No	Characteristics	Description
1	Start-up time	no more than 5 sec
2	Type of work with specified characteristics	continuous, uninterrupted
3	Automatic shutdown function	in 10 ± 1 sec after the end of the programme
4	Mean time between failures	no less than 1500 hours
5	Life cycle	no less than 5 years
6	Material of the bodies of the power unit and radiators	ABC plastic
7	Ambient temperature during use	between + 10 and + 35 °C

8	Rated air humidity (combination of relative humidity and temperature)	80 % at 25 °C
9	Rated direct voltage	3,0 V
10	Consumption current	no more than 80 mA

Depending on the radiator used, the device should ensure the output characteristics meeting those given in Table 2.

Table 2

I	Carrier frequency	Wave length	Label colour	Duration, sec:	Power flow density, $\mu\text{W}/\text{cm}^2$)
1	40 - 43 GHz	7,5 - 6,98 mm	red	1÷1800	0,0001 - 0,6
2	52 - 57 GHz	5,77 - 5,26 mm	green	1÷1800	0,0001 - 0,6
3	57 - 63 GHz	5,26 - 4,76 mm	blue	1÷1800	0,0001 - 0,6
4	50 - 75 GHz	6,0 - 4,0 mm	yellow	1÷1800	0,0001 - 0,6
5	250-375 THz	1,2 - 0.8 μm	white	1÷1800	0,0015 - 0,2

Millimeter electromagnetic radiation is modulated by a simple low-frequency or complexly modulated signal. The frequency, duration and form of modulating signals are changed by the software during the treatment session. The programme number according to the Unified Programme Register of the Manufacturer is shown in the identification number of the radiator. The carrier frequency is not changed.

Example of designation.

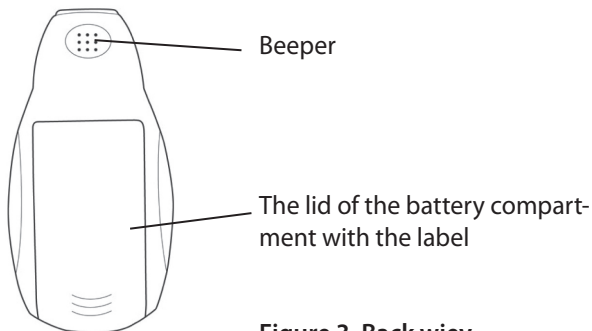
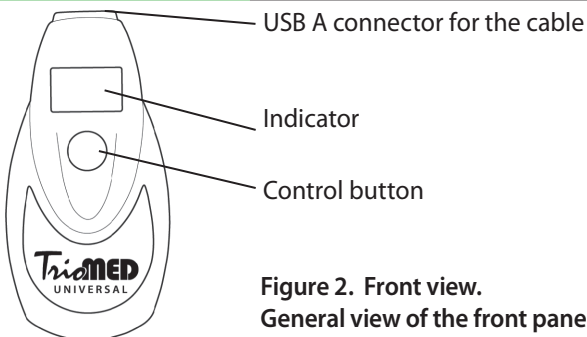
Radiator 1:

- radiator type – Identification color - red,
- programme number according to the Unified Programme Register of the Manufacturer – “1”.

4.2. Structure and functioning

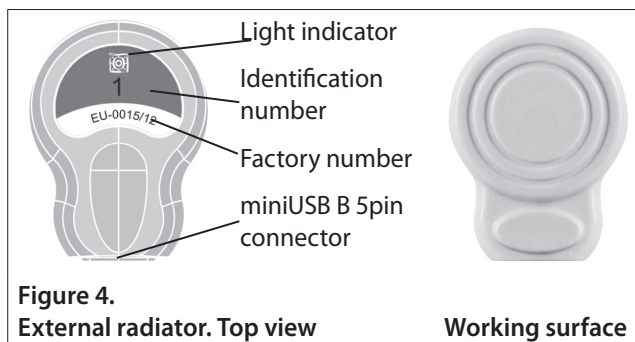
The power unit includes (Fig 2 and 3):

- indicator of the programme number of the attached radiator and the remaining time of stimulation;
- USB connector for the cable (USB A – miniUSB B 5pin);
- button to switch on the device and activate the programme of the radiator as well as to switch off the device;
- beeper for sound indication of the functioning of the device;
- battery compartment.

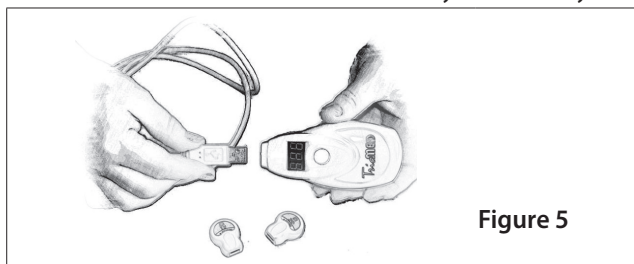
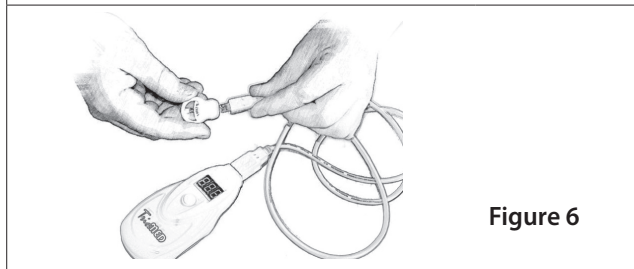


The radiator includes (Fig 4):

- LED to indicate the functioning of the device;
- miniUSB 5pin connector for the cable (USB A – miniUSB B 5pin);
- MM EMR generator or IR-diode (depending of the radiator type)

**Figure 4.****External radiator. Top view****Working surface**

The device with the batteries in is always on standby.

**Figure 5****Figure 6**



When the radiator is attached to the power unit through the USB cable (Fig 5), the device is switched on automatically and the indicator shows the number of the programme (Fig 6) of the attached radiator (001 for radiator 1 and 005 for radiator 5).

Upon pressing the control button the radiation is switched on and the indicator shows the duration of the session in seconds. The countdown will begin, the beeper located on the power unit will produce sound and the LED is periodically on and off on the radiator.

If the control button is not pressed within 10 seconds after the radiator has been attached, the device enters the standby mode and the indicator is switched off. To switch the device on, press the control button. The indicator will show the number of the programme of the radiator attached. To switch radiation on, press the control button again. The countdown begins, the beeper will produce sound and the LED will be switched on the radiator.

At the end of the session the indicator will show three zeros (000). If the control button is not pressed again within 10 seconds, the device will be switched off automatically and the numbers on the indicator will be turned off.

You can switch off radiation any time during the session by pressing the control button. The programme will be stopped.

5. PACKAGE CONTENTS

The package contents of the TRIOMED UNIVERSAL device are listed on the package (box) and include:

- low-frequency electronic TRIOMED generator (power unit);
- external radiator No.1;
- external radiator No.5;
- standard cable (USB A – miniUSB B 5 pin);
- 2 LR06 batteries;
- user manual;
- consumer packaging;
- warranty.

Additional radiators can be purchased separately.

6. LABELLING

The marking is shown on the label placed on the lid of the power unit.



The label specifies:

- name of the device,
- factory number (serial number/year of manufacture)
- handling symbols,

Legal address of the manufacturer, power consumption, the type and amount of nutrients and other necessary information is given in this manual.

The marking of the radiator is shown on the colour label located under the glass (Fig 4). The label colour corresponds

with the carrier frequency of radiation (Table 2). The label shows the identification number, the serial factory number and the trademark.

7. PACKAGING

The packaging protects the device from weather and mechanical damage. The packaging (box) provides all the required information in English and the language of the seller's country about the product, package contents, manufacturer. It also contains handling symbols and data concerning the certification in the European Union.

The device is placed into the storage bag and put into the box.

8. DISPOSAL



The device is produced in accordance with the EU requirements for the content of harmful chemical substances. The device should be disposed of into a special container for radioelectronic equipment.

9. WARRANTY

The warranty is provided on a separate sheet which can be found in the box.

10. PREPARING THE DEVICE FOR USE

10.1. Operating restrictions



The device can be used only after reading the User Manual.

IT IS FORBIDDEN:



- to use the device without reading the User Manual;
- to use the faulty or damaged device;



- to use the device in rooms with high humidity;
- to put the device into the water without proper protection,
- to let water and chemical substances get inside the device,



- to handle the device roughly, expose it to excessive mechanical vibrations or shocks, crush or drop the device,



- to use power supply devices not recommended by the manufacturer;



- to keep the device in places accessible to children and animals;
- to use the device after it has been stored at a temperature below 0°C without leaving it first for at least 4 (four) hours to lie unpacked at the room temperature.

IT IS NOT RECOMMENDED



- to use R06 saline batteries. Such batteries serve only a short period of time and have limited resource whereupon they deteriorate contaminating and damaging the device. It is recommended to use LR06 batteries.

10.2. Safety precautions



- no special safety precautions are required for the patient in the case of device failure, emergency or urgent evacuation of the medical staff;
- the patient can assume any comfortable position during the treatment with the device.
- please use the storage bag for storing and transporting the device.

10.3. Preparing the device for use

Before switching on the device, inspect the outside of the device and make sure that the body is not damaged.

IT IS FORBIDDEN to use the device with the damaged body!

Fig 7 shows how to replace the battery.

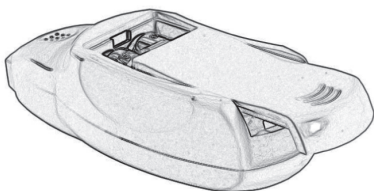


Figure 7.
Battery replacement

To replace the batteries slide the lid to the side at the back of the power unit, take the lid off, extract the old batteries and insert the new ones observing the polarity in accordance with the marking on the body of the devices and on the batteries.

The level of the battery charge is indicated by the brightness of the indicator. The lack of light or sound signals means that the device is broken or that the batteries are empty. In this case please check the batteries and replace them if necessary. If the device is broken, please contact the seller for inspection and/or repair.

CHECKING OF THE SERVICEABILITY OF THE DEVICE:

- connect the radiator to the power unit using the USB cable. The device will switch on and the indicator will show the number of radiator programme;
- press the control button. The radiation will turn on, the beeper will produce sound, the indicator will show the duration of the session in seconds and the countdown will begin. The LED on the radiator will turn on .
- press the control button again not waiting until the end of the session. The indicator will show zeros in all its sections, the beeper will switch off and the LED on the radiator will turn off. The indicator will turn off in 10 seconds and the device will switch off.

10.4. List of possible faults and suggested remedies

Possible faults and suggested remedies are listed in Table 2.

Table 2			
No	Signs of a fault	Likely reason	Remedy
1	the number of the programme is not shown on the indicator of the power unit when the radiator is connected	The batteries are defective or have discharged.	replace the batteries; if following the insertion of non-defective batteries the device cannot be switched on, send it to be repaired
2	the same problem	there is no contact in the USB connectors or miniUSB in the power unit or the radiator	restore contact in the connectors by connecting the cable again
3	the same problem	the radiator is defective	by connecting other radiators identify the defective one and send it to be repaired
4	the same problem	the connection cable is defective	use a similar cable to make sure that the defect is in the cable Replace the cable with a similar one.

5	when the control button is pressed, the beeper makes no sound, the indicator does not show duration of the session, the countdown does not begin, the LED on the radiator is not on	electric circuit failure	send the device to be repaired
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In the case of other faults please contact the seller. The addresses and contact numbers can be found in this Manual and on the packaging.

10.5. Technical maintenance

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No technical maintenance is provided during the life cycle of the product.

The serviceability of the device and the characteristics of the radiation it generates are checked once a year at the technical maintenance centres of the sellers.

11. PROCEDURE FOR USING THE DEVICE

This User Manual regulates the therapeutic use of the device.

By exposing the body surface to a millimeter electromagnetic field using the TRIOMED UNIVERSAL device, you can exert a positive effect on the internal organs, trophic processes, metabolic processes, secretory activity and other vital functions of the organism.

The treatment plan specifying the location and duration of the stimulation, the type of replaceable radiator and the number of treatment sessions should be determined individually depending on the location of the pathological process, the extent of manifestation of clinical syndromes, the stage of the disease and the state of the organism.

When using the device one can also follow methodological recommendations, new and advanced medical technologies as well as guidelines for doctors.

11.1. Selecting the impact position

In accordance with the rules and principles of physical therapy and restorative medicine (rehabilitation), the device can be used to stimulate the following areas:

- the pathological focus or the area of its projection,
- the projection of the organs in the Head's zones,
- areas of biologically active points and zones,
- the area of the spinal column, joints and great vessels.

The selection of the programme and the areas of stimulation during MM and IR therapy of various conditions should be based on the main syndrome depending on the reason, location of the pathological focus, the stage of the disease and the state of the body.

The systemic effects of the therapy are of a prolonged character. Stimulation only produces an initial positive effect which builds up in the next 2-3 weeks after a course of stimulation. That is why a pause of 3 to 8 weeks (depending on the patient's state of health) is necessary between the courses.

The individual selection of the treatment programmes and the treatment plan takes into account the location and duration of stimulation as well as the number treatment sessions.

11.2. Local stimulation in the pathological focus

If the pathological focus is located on the surface (injury, inflammation) and manifested through pain, reddening or swelling, the stimulation should be local.

At the initial stage of the disease, it is recommended to carry out stimulation for 5-7 minutes 4-5 times a day gradually reducing the number of treatment sessions when the patient starts feeling better.

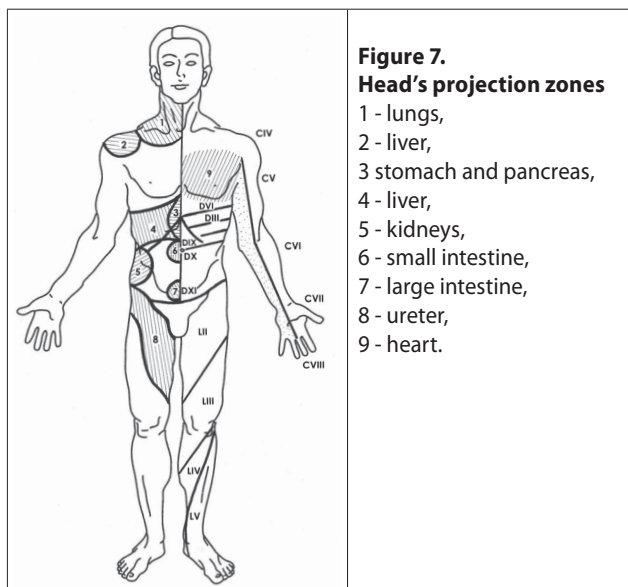
11.3. Use of device in Head zones

There is a close regulatory link between segments of the spinal cord and internal organs. That is why visceral diseases are accompanied by reflex changes in segmentally related functional formations mostly innervated by the same segments of the spinal cord. Reflex changes can occur in the skin, muscles and connective and other tissues and, in their turn, exert influence on the primary focus supporting the pathological process.

The majority of therapeutic effects on the damaged internal organs are achieved through the Head's zones.

The figure shows the zones of increased skin sensitivity (hyperesthesia) which are called the Head's projection zones. In these areas of the skin, any normally painless irritation in the form of pressure, touch, heat or cold causes pain or discomfort.

The centres of projection zones are the so-called active spots of anxiety or points of concentrated pain where the affected organs send their signals of distress. Such points are easy to locate. When stimulated, they become sensitive, and even cause pain. Hypersensitivity disappears after the functioning of the organ or system of organs has been normalised.



It is recommended to stimulate the area corresponding to the sick organ.

The total duration of the stimulation should not exceed 60 minutes per day. In the initial period of treatment (1-2 days) it is practical use the device to activate the regulatory systems

(1 treatment session per day). After the body has adapted to the stimulation, the intensity of the treatment is increased to 2-3 treatment sessions per day. If necessary, the course of treatment can be repeated in 2-6 weeks.

11.4. Stimulation of biologically active zones

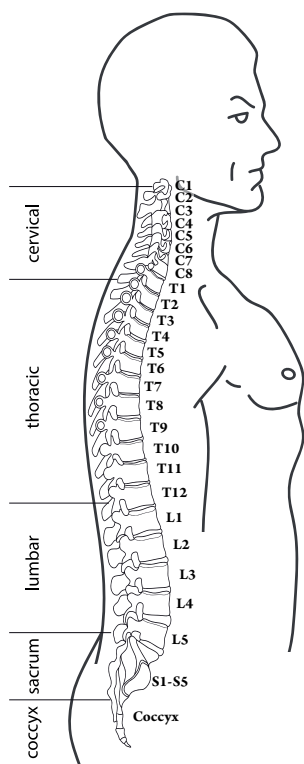
The back of the neck, the back of the head, the shoulder girdle and the upper part of the back and the chest make up the so-called collar area which is extremely important because it houses the nerve plexuses of the neck affecting the vascular system, the trophism of the brain and the functional state of the anterior lobe of the pituitary gland and of the thyroid gland.

Stimulation of this area is indicated in the case of hypertension, sleep disorders and trophic disorders in the upper extremities.

Stimulation should be carried out at the level of the 4th cervical vertebra and the 3rd thoracic vertebra (C4-T3) paravertebrally covering the zone of the shoulder girdle top-down in slow longitudinal or zig-zag motions for 1 minute on each side in turn holding the device for 5-7 seconds on the most painful spots. The course of treatment consists of 10-15 sessions 1-2 times per day.

The lower thoracic and the upper lumbar areas are important reflexogenic zones by stimulating which you affect the functional state of the organs located within this metamere, in particular the kidneys and the adrenal glands.

Stimulation should be carried out paravertebrally at the level of the 10th thoracic and the 2nd lumbar vertebra (T10-L2) bottom-upwards several times on each side staying longer on the most painful spots. The course of treatment consists of 10-15 sessions 1-2 times per day.



Stimulation of the lum-bosacral area improves the blood circulation and the trophism of the tissues in the zone of stimulation, in the lower extremities as well as in the pelvic organs. It is indicated in the case of vas-cular diseases and injuries of the lower extremities and to stimulate the hormonal function of the sex glands.

The treatment has a general tonic effect on the patient's body. Stimulation is carried out in slow longi-tudinal and circular motions verteb-rally at the level of the 4th lumbar and the 3rd sacral vertebra (L4-S3) on each side in turn for 20-30 seconds. The course of treatment consists of 10-15 sessions 1-2 times per day.

The anticardium houses the solar plexus which is a col-lector of autonomic links of the abdominal, pelvic and tho-racic organs and the centres of the spinal bulb. Stimulation of this area has a positive effect on the function of the above-mentioned organs and the central nervous system. The treatment session in the pit of the stomach should be carried out for 1 minute 1-1,5 hours after a meal in circular, slow, sliding motions clockwise gradually covering the cen-tral spots. Then the device should be held still for 1 minute

under the xiphoid process. The course of treatment consists of 10-15 sessions 1-2 times per day.

Clinical research has shown a connection between the skin in the lower part of the anterior abdominal wall and the internal genitourinary organs. Stimulation of the anterior abdominal wall allows to actively influence the state of these organs. The radiator should be slowly moved in the lower part of the abdominal wall in alternating rectilinear, circular and zigzag motions. The course of treatment consists of 10-15 sessions 1-2 times per day. In a number of cases it is practical to carry out the said procedure in combination with the massage of the lumbosacral area.

11.6. Stimulation of reflexogenic zones

In addition to segmental reflexogenic zones there are also other reflexogenic zones on the human body which correspond to the projection of various organs and body parts to the brain cortex and are topographically localised in particular areas. Such zones include the palmar surface of the hand, the plantar surface of the foot, the nasal region, the auricle and the cranial integuments.

11.7. Treatment description

- The patient assumes a comfortable position.
- Before starting the treatment session, please select the radiator and connect it to the device using the cable. The device is ready for use when the indicator shows the programme number.
- The radiator is placed on the patient's body with the colour label up and held by hand (Fig 8).

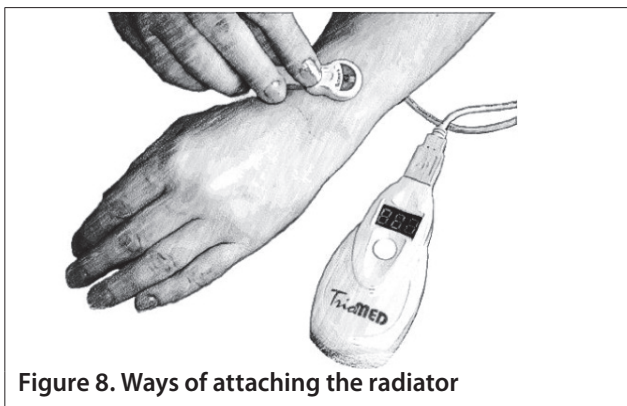


Figure 8. Ways of attaching the radiator

- If the placing took more than 10 seconds, the device will enter the standby mode. Press the control button to return the device to the ready mode.
- To switch on the radiation and begin the treatment session, the control button needs to be pressed. When the device is functioning normally, the countdown is running, the indicator is showing the remaining time of the session and beeper is producing sound and the LED on the radiator is on.
- 10 minutes after the end of the treatment session the device will switch off automatically.
- Press the control button to switch the device off earlier.
- The radiator should be moved in slow circular motions to stimulate large biologically active zones and in longitudinal motions to stimulate the spinal column and great vessels.

Attention: in the case of deterioration or discomfort that persists after 3 treatment sessions, it is recommended to stop using the device and contact the doctor.