

Portable electrostimulator with inner and remote electrodes, for stimulation of Biologically Active Points (BAP) and Biologically Active Zones (BAZ) and for electropuncture diagnosis

DiaDENS-PC

OPERATION INSTRUCTIONS (brief edition)



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* - only full version

This Operation Instructions (OI) cover electrostimulator with built-in and remote electrodes, the portable one for stimulation of the BAP and BAZ and for electropuncture diagnosis DiaDENS-PC.

The Operation Instructions includes Technical Passport and the Instructions for Operation proper.

PART 1. TECHNICAL PASSPORT

1. FUNCTION

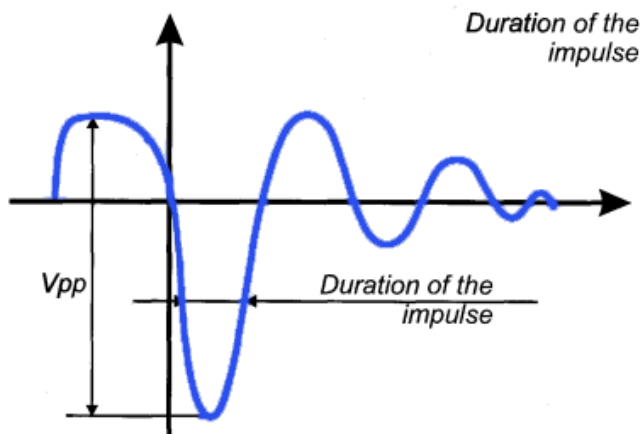
The DiaDENS-PC device will be used for electric stimulation of biologically active points and zones (BAP and BAZ), for auricular diagnosis, mini acupuncture diagnosis and the diagnosis by the Foil method. The device is equipped with built-in and remote electrodes.

The DiaDENS-PC device is intended for individual application in therapeutic-prophylactic institutions and at home in compliance with directions given by the attending physician, autonomously, or along with computer diagnostics. The personal computer will be used for accumulation and storage of the diagnosis data.

2. TECHNICAL CHARACTERISTICS

2.1. Electric impulses of the device must have output parameters as follows:

2.1.1. the impulse minimal parameters:



- duration of the impulse positive part, us, not exceeding 5
- amplitude of the impulse positive part, V, not exceeding 10
- amplitude of the impulse negative part, V, not exceeding 10

2.1.2. maximal parameters of the impulse:

- duration of the impulse positive part, us, not exceeding 500 ± 70
- amplitude of the impulse positive part, V, not exceeding 30 ± 10
- amplitude of the impulse negative part, V, without load 350 ± 70
- with load $(20 \pm 5\%) k\Omega$ 300 ± 70

2.2. The device has the frequencies of impulse sequence settings in Hz as follows:

2.2.1. Range 1:

- 10 ± 2 including MED and SCREENING regimes
- 20 ± 2 - 60 ± 2 - 77 ± 2
- $77 \text{ Hz} \pm 2$ and $10 \text{ Hz} \pm 2$, modulated with frequency $2 \pm 0.1 \text{ Hz}$
- $77 \text{ Hz} \pm 2$ with modulation by amplitude
- 140 ± 5 - 200 ± 5

2.2.2. Range 2: from 1 to 9.9 with increment 0.1 ± 0.05 .

2.3. The maximal used current (voltage 9 V.) not exceeding 40 mA.

2.4. Power supply:

battery of 6F22 type, voltage 9 V

It will be admissible to use storage batteries of 6F22 type, voltage at least 9 B*.

2.5. Mass of the device, kg, not exceeding 0.35

2.6. With remote therapeutic and diagnostic electrodes, kg, not exceeding 0.7

2.7. Overall dimensions of the device, mm, not exceeding 210x55x45

2.8. Overall dimensions of therapeutic electrode, mm, not exceeding 125x10

2.9. Overall dimensions of passive diagnostic electrode, mm, not exceeding 100x20

Overall dimensions of active diagnostic electrode, mm, not exceeding 130x10

2.10. The device will be connected to the computer via serial port by protocol RS-232.

2.11. The device will be automatically switched off not later than in 10 minutes after the device has been idle or after last application of electrodes to skin surface.

2.12. Operational conditions:

- surrounding temperature, °C 10-35
- relative air humidity at 25°C, not exceeding 93

If the device was stored at the temperature lower than 10°C, keep it under normal climatic conditions for at least two hours prior to using it.



— an item of the B type with the operational part of the F type.

Attention! The device contains fragile elements. Protect it from blows.* the operational sequence (types of chargers, charging procedures) has been described in detail in Instruction for the storage batteries

3. COMPLETE ASSEMBLY

3.1. The version of complete assembly of the DiaDENS-PC device corresponds to the Table 1.

Table 1

Name	Number
Electrostimulator "DiaDENS-PC"	1
Operation Instructions, Passport and Operation Instructions proper	1
Electrode remote, therapeutic	1
Electrode, diagnostic	1
Connecting computer cable	1
CD, software	1
User instructions for DiaDENS-PC software package	1
Case	1
Cover for electrostimulator	1
Packaging	1
Power supply: battery of the 6F22 type	1

4. SAFETY RULES



Read carefully all information contained in this Operation Instructions in respect to your safety, as well as recommendations for correct use and maintenance of the device

4.1. The device presents no danger for patients because of using low-voltage inner power supply. When connected to personal computer, the device presents no danger either when used with connection a cable specifically designed for safety operation.

4.2. The device can not be used for treatment or diagnosis of patients who have implanted electronic devices (for instance, cardiostimulator) or for treatment of patients with individual in tolerance of electric current.

4.3. During stimulation, the patient must not be connected to any high-frequency electrical device other than personal computer connected with a special cable provided in complete assembly.

4.4. During stimulation or diagnosis with the computer connected to the device, one must not simultaneously touch the patient and the computer frame.

4.5. Warning of potentially dangerous factors:

- simultaneous use of the device and other electric equipment by the patient (apart from personal computer connected with special cable) may cause burns and potentially damage the device;
- operation of the device near (within about 1-metre distance) of a short-wave or microwave therapeutic equipment, may induce instability of the device output data.

5. DEVICE SYSTEM AND FUNCTION

5.1. The device consists of the frame 1 (Fig. 1) with inbuilt electrodes 13 (Fig. 2); cover 14 (Fig. 2) for changing power supply.

The complete assembly of DiaDENS-PC device includes:

- remote pointed therapeutic electrode (Fig. 1.1).
- diagnostic electrode (Fig. 1.2).

In addition, to the device, other remote therapeutic electrodes of the model series from the enterprise-manufacturer can be attached.

Attention! The remote therapeutic electrode may only be used in THERAPY regime.

Before using the remote electrode, the skin in the treatment area should be dampened with water or treated with Malavti-lin ointment by apply small amount of it until completely absorbed.

5.2. The device is equipped with a liquid-crystal indicator "2" (Fig. 1).

5.3. The device has control keys as follows (Fig. 1):

- key "3" ("B" or «Б») - for switching on the BIOREPER regime and MiniAC regime (simultaneously with

the key "9" - "On" or «Вкл») (Fig.1);

- key "4" ("F" or «Ф») - for switching on the FOLL regime and BIOFOLL regime (simultaneously with the key "9" - "On") (Fig. 1);
- key "5" (FREQUENCY "+" or «ЧАСТОТА» «+») - for increasing the frequency in THERAPY regime, for switching to the "7710", "77AM" regimes, and for termination of operation in SCREENING, MED regimes;
- key "6" (POWER "+" or «МОЩНОСТЬ» «+») - for augmentation of the stimulation power;
- key "7" (FREQUENCY "-" or «ЧАСТОТА» «-») - for decreasing the frequency in THERAPY regime and for switching to the (SCREENING or СКРИНИНГ), (MED or МЭД) regimes and for termination of operation in the "7710", "77AM" regimes;
- key "8" (POWER "-" or «МОЩНОСТЬ» «-») - for decreasing the stimulation power;
- key "9" ("On" or «Вкл») - for switching the device on;
- key "10" ("Off" or «Выкл») - for switching the device off;

5.4. The device has also slots as follows (Fig. 1):

- slot "11" - for connection of remote therapeutic electrodes and connecting to personal computer;
- slot "12" - for connection of diagnostic electrodes.

6. TECHNICAL MAINTENANCE

6.1. Daily technical maintenance must consist of the operations as follows:

- visual inspection of the device; -disinfection.

For cleaning the electrodes, use standard disinfectants (e.g. 70% rubbing alcohol) and soft cleaning tissues.

6.2. Checking of the device function will be performed in compliance with directions stipulated in the Section Regimes of Operation.

6.3. If the device will not be operated for a prolonged period of time, it will be necessary to remove the power supply from the battery block 14 (Fig. 2).

6.4. When the message CHANGE THE BATTERY or «ЗАМЕНИТЕ БАТАРЕЮ» appears, the power supply should be replaced.

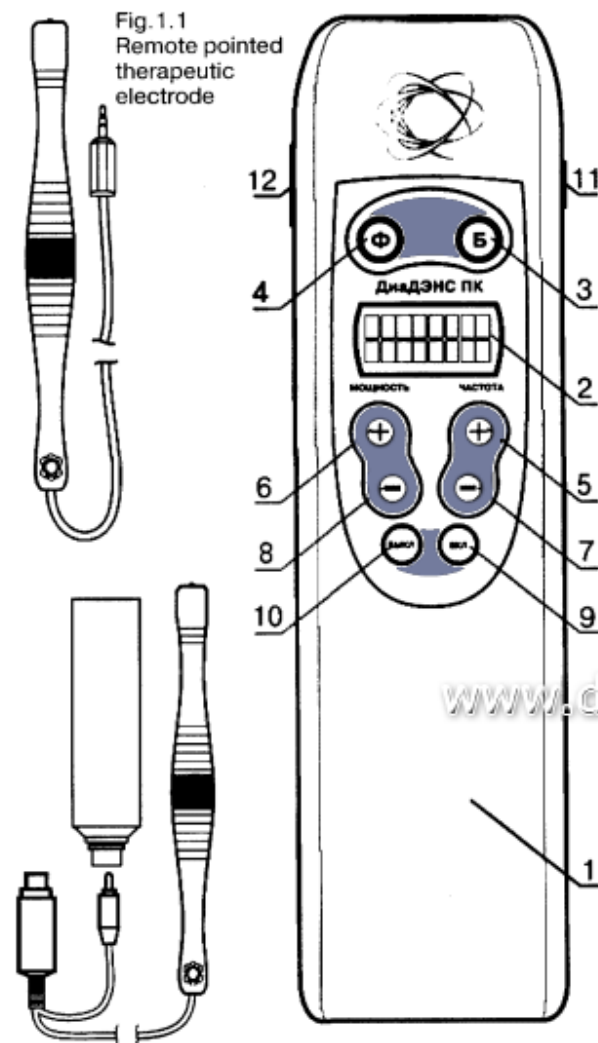


Fig. 1.2
Remote diagnostic
electrode

Fig. 1
The "DiaDENS-PC" ap-
paratusdevice

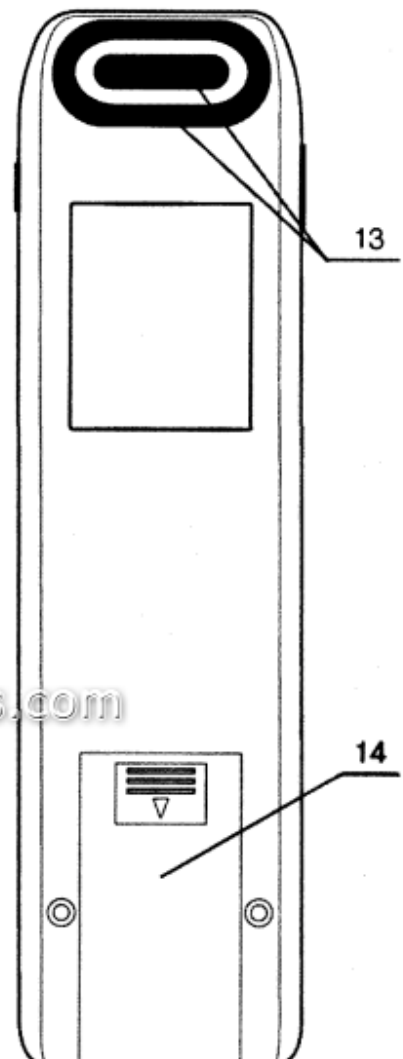


Fig. 2
The DiaDENS-PC device (the reverse side)

7. POSSIBLE PROBLEMS AND TROUBLESHOOTING

Possible problems and troubleshooting are presented in Table 2

Table 2

Problem	Possible cause	Troubleshooting
Device automatically switches to THERAPY regime from TEST regime	Electrodes are dirty	p. 6.1
Device switches off if the message CHANGE THE BATTERY appears, or it does not switch on	Voltage of the power supply is less than 7.9 V	Substitute the power supply
When using remote electrodes, the device stays constantly in the WAITING mode	No contact between the device and the remote therapeutic electrode	Check the contact of the slot 11 (Fig. 1)
	Dry skin	Swipe with tampon wetted with water
Device performs no measuring in the FOLL, BIOFOLL and BIOREPER, MiniAC regimes.	No contact between the device and the remote diagnostic electrode	Check the contact of the slot 12(Fig. 1)
	Dry skin	Swipe with tampon wetted with water
Device does not transfer data to personal computer	Disrupted connection between the device and personal computer	Check the contact: 1. Slot 11 (Fig.1) 2. Slot of computer connection
	Software failure	To reinstall software from the CD

Attention! All other problems will be repaired at the manufacturer's or by manufacturer service centers

8. STORAGE AND TRANSPORTATION

Transportation conditions:

- temperature -50°C to +50°C;
- relative air humidity up to 93% at the temperature +25°C.

Storage conditions:

- temperature -50°C to +40°C;
- relative air humidity up to 93% at the temperature +25°C.

9. UTILISATION



All packing material is environmentally safe and can be reused.



Separate assemblage of electric and electronic equipment.

Do not throw away device in the garbage! It contains valuable materials that could be reused or recycled thus helping us protect the environment. Please submit the materials to specially designated places (consult with respective services in your region) for their collection and recycling.

10. MANUFACTURER WARRANTY

10.1. The manufacturer guarantees the device complies with requirements of Technical Specifications (TU) 9444-002-35266303-2005 if the operational, transportation and storage conditions are observed.

10.2. Device service life: 5 years.

When using the device properly, its service life can be considerably longer.

10.3. The warranty period for the device: 12 months as of the date of sale. The warranty period of the power supply will be determined by its manufacturer.

10.4. Retailer (manufacturer) or organization functioning as retailer (manufacturer) based on the contract concluded with it, is not liable for defects if they occur after delivery of the device to the user as a consequence of:

- 1) violating the rules of transportation, storage, maintenance or operation by the user, as these rules are indicated in this Operation Instructions;
- 2) actions by third parties;
- 3) force majeure circumstances.

10.5. The warranty does not cover the items with damaged manufacturer's seals.

10.6. In the event of the device failure or defect discovered during the warranty period or in the event of incomplete assembly, the owner must send an application for repair (substitution) to the manufacturer, indicating surname, name, patronymic, address, telephone, brief description of the defect, date and conditions of its occurrence.

11. CERTIFICATE OF ACCEPTANCE

Portable electrostimulator with built-in and remote electrodes, for stimulation of Biologically Active Points (BAP) and Biologically Active Zones (BAZ) and for electropuncture diagnosis

PART 2. OPERATION INSTRUCTION

1. GENERAL CONSIDERATIONS

Use of reflex zones and points for prophylactics treatment and rehabilitation of the body functions is one of the most ancient and efficient ways of physio- and reflex-therapy.

Numerous studies indicate that a multi-layer reflex and neu-rochemical responses triggering a cascade of regulatory and adaptive mechanisms of the organism underline the therapeutic effect of the dynamic electroneurostimulation (DENS).

The device will be used with due consideration of concomitant symptoms and syndromes:

- as an independent method of treatment the event of allergic responses to pharmacotherapy as well as in presence of contraindications for other methods;
- as a component of integrated therapy for reinforcing the effect of basic medicinal, homeopathic or manual therapy, as well as psychotherapy and other treatment techniques;
- as a symptomatic treatment for various diseases and syndromes.

Attention! *The first and often the only sign of a serious disease might often involve a sudden occurrence of pain of any localization. Therefore if the pain occurs for the first time and then repeatedly occurs again and intensifies, immediately contact your physician.*

EFFECTS OF ELECTRONEUROSTIMULATION

- anaesthetic;
- anti-inflammatory;
- regulation of vascular tone;
- improvement of microcirculation;
- antipyretic;
- immune-modulating and anti-allergy;
- regulation of smooth and skeletal muscle tone.

INDICATIONS FOR APPLICATION:

- pain syndromes;
- respiratory diseases, digestive diseases, cardiovascular, skeletal-muscle, uro-genital, nervous, endocrine systems, OTO diseases, eyes and skin diseases in adults and children; rehabilitation and recovery following treatment, surgical interventions, and lesions;
- effects of unfavourable pathogenic factors (stress, intense physical or psycho-emotional loads, other unfavourable conditions).

CONTRAINDICATIONS:

Absolute:

- individual intolerance of electric current;
- presence of implanted cardiostimulator.

Relative*:

- epilepsy;
- neoplasms of any aetiology and localization (in advanced stages of oncological process, the electrostimulation can be performed as a palliative (auxiliary) measure including elimination of the pain syndrome;
- acute fevers of unknown aetiology;
- venous thrombosis;
- condition of acute mental excitement, alcohol or drug in toxication.

** in these cases, application of the electrostimulator should be first discussed with the attending physician*

2. TREATMENT CONDITIONS

No special conditions are required for performing the DENS. The room for the electrotherapy must be dry, clean and well lighted. During the electrotherapy session, the patient may be seated or reclining comfortably. After the session, it is recommended to have a 10-15-minute rest.

During the procedure, the electrostimulator must be held in one hand and manipulated lightly. The device electrodes should be in permanent contact with the patient's skin during the procedure. Following each procedure, the device electrodes will be treated with a standard disinfectant (e.g. 70% rubbing alcohol). The devices should be stored with dry electrodes.

3. THE ELECTROSTIMULATION INTENSITY

Determining the dynamic electroneurostimulation intensity will be done individually, based on patient's

Will be successively changed by pushing FREQUENCY "-" key*						Will be set automatically on switching the device on	Will be successively changed by pushing FREQUENCY "+" key **			
1.0-9.9 Hz***	Sreening	MED	10 Hz	20 Hz	60 Hz	77 Hz	77.10	77AM	140 Hz	200 Hz

* The regimes will be switched back by pressing FREQUENCY "+" key
 ** The regimes will be switched back by pressing FREQUENCY "-" key
 *** Brief pressing the key: 0.1 Hz step of change, long pressing the key: 1.0 Hz step of change

Table 4

("F" or «Ф») key	Simultaneous pressing of the ("F" or «Ф») and ("On" or «Вкл») keys	("B" or «Б») key	Simultaneous pressing of the ("B" or «Б») and ("On" or «Вкл») keys
FOLL («ФОЛЛЬ»)	BioFOLL («БиоФОЛЛЬ»)	BIOREPER («БИОРЕПЕР»)	MiniAC

5.1.1 TEST Regime

TEST regime is intended for evaluation of functional condition of the body organs and systems by means of searching for zones where the skin electrical resistance will sharply differ from adjacent areas (the latent trigger zones (it is also intended for treatment of the skin areas symmetrical to the complaint projection (the symmetry principle).

Attention! In the TEST regime, search for latent trigger zones will be performed rather than diagnosis.

The energy range: minimal or comfortable. The operating method: stable (the electrodes will be shifted after receiving a sound signal).

5.1.2. The SCREENING regime

The SCREENING regime provides quick evaluation of the zone condition prior to and after DENS treatment. The SCREENING regime is intended for fast search of latent trigger zones. One measurement of the skin surface resistance occurs within first five seconds.

5.1.3. The THERAPY regime

The THERAPY regime OPERATES:

- at frequencies of 1.0 to 9.9 Hz (with the minimal step 0.1 Hz);
- at frequencies of 10, 20, 60, 77, 140 and 200 Hz;
- in therapeutic regimes 77.10 and 77AM.

At operation in THERAPY regime, both the zonal (with the aid of inbuilt electrodes) and pointed (with the aid of remote electrode) action.

Recommendations for choosing therapeutic frequencies:

- **1.0-9.9 Hz - "infraslow"**. These will be used for action upon

biologically active points and zones with altered parameters revealed after electropuncture diagnosis performed by the method of FOLL or BIOFOLL. Treatment formula and choice of optimal frequency will be performed individually, after analyzing the obtained diagnosis data. Additionally, these frequencies can be used with the built-in electrode of the device with due consideration of the indications presented in Table 5.

Table 5

The list of frequencies used in the device DiaDENS-PC for some diseases, syndromes and symptoms within the range 1..9.9 Hz*

Frequency, Hz	Characteristics of the pathological condition
1.2	Autoimmune diseases, tachycardia, knee joint weakness
1.6	Arthritis-arthritis
1.7	Acne, abscess, hypotension, dermatitis, parodontosis, sympathetic-tonic action, furunculosis, eczema
2.2	Fatigue, pustular eczema
2.5	Insomnia, vegetative disorders, hypermenorrhoea, headache associated with the nasal sinus diseases, haemorrhages, brain contusions, lesions, menor-rhages, uterine myoma, oedemas, toxic and infectious liver damages, hepatitis, cirrhosis, parodontosis, sinusitis, contusions, eczema
2.6	Virile syndrome, haemorrhoids, headaches in liver diseases, intestinal headache, dermatitis, impotence
2.8.	Nephritis, nephrolithiasis, renal colic, nephrosclero-sis, uremia
2.9	Rhinitis, sinusitis
3.3	Arteriosclerosis, hypertension, otosclerosis, toxic and infectious liver damages (hepatitis, cirrhosis), nephrolithiasis, renal colic, nephrosclerosis, uremia, nephritis, furunculosis, hypertension against the background of atherosclerosis
3.5	Gall-stone disease, nephrolithiasis, renal colic, knee joint weakness, menorrhages
3.6	Inflammation, moodiness, irritability
3.8	Allergy, haemorrhoids, spasms of various genesis
3.9	Neuralgia, sleep disorders (the phase of falling asleep)

4.0	Adipose-genital dystrophy (obesity), asthma, virile syndrome, haemorrhoids, hypermenorrhoea, endocrine headache, dizziness, hypophyseal disorders, impotence, menopause, menorrhages, pancreatic disorders
4.6	Parathyroid gland functional disorders (effect upon the calcium balance)
4.9	Virile syndrome, meningeal headache, climax, menorrhages, obesity, occipital muscle rigidity, furunculosis, monoalgias
5.5	Vascular headache
5.8	Otogenic headache, depressions
5.9	Spastic paralysis
6.0	Hypertension, headaches in liver diseases, occipital muscle rigidity, extrasystoles, systolic hypertension, for heightening alertness and mental capacity
6.3	Headaches due to cerebral angiospasm, neuroses, irritability, brain concussion
6.8	Myalgia, muscle seizures
7.5	Neuralgia of the trigeminal nerve
7.7	Spastic paralysis
8.0	Headache of intestinal genesis, asthma, allergic bronchitis
8.1	Diuretic action (including the effect upon potassium and sodium balance), nephrolithiasis, renal colic, nephritis, cystitis (pyelocystitis)
8.5	Insomnia
8.6	Fractures, duodenal ulcer
9.2	Hypertension, otogenic headache, nephrogenic headache, gout, diastolic hypertension, dermatitis, spastic paralysis, nephrosclerosis, uremia, furunculosis, eczema (including the one combined with renal function disorders), diabetes mellitus
9.3	Flaccid paralysis
9.4	Adnexitis, obstructive bronchitis, hypertension, gas-trogenic headache, intestinal headache, urogenital headache, endocrine headache, duodenitis, impotence, oedemas, paresthesias, paresis, prostatitis, pectoral angina, erythema nodosum, furunculosis, cystitis (pyelocystitis), eczema, parametritis, gastric ulcer, ulcerous-necrotic endomyocarditis
9.5	Hypertension, headache of vascular genesis, climacteric hypertension, laryngitis, parodontosis
9.6	Arthritis-arthritis, Bechterew's disease, depressions, spine lesions, osteochondrosis
9.7	Arthritis-arthritis, sciatica, gout, nephrosclerosis, uremia, rheumatism
9.8	Toxic and infectious damages to the liver, hepatitis, cirrhosis
* A.V. Samokhin, Yu.V. Gotovsky. The electropuncture diagnosis by the R. Foil technique. - M.: The Centre of Intellectual Medical Systems IMEDIS.2003 - 512 p.	

- **10, 20 Hz- "low" frequencies.** They will be used in problem zone with direct projection, in universal zones and the zones reinforcing the systemic effect. This effect occurs within 20-60 minutes, lasting for several hours.

Indications: diseases of internal organs, muscular-skeletal system including traumas (sub-acute and remote periods), postoperative period.

- **60, 77 and 140 Hz - "high" frequencies.** These will be used in problem zone with direct projection, segmental zones, trigger zones. The effect occurs within 5-10 minutes, lasting for one or more hours. Indications: inflammatory and functional diseases of the internal organs with a moderate pain syndrome, circular disorders.

- **200 Hz - "superhigh" frequencies.** These will be used in problem zone with direct projection. The effect occurs within first minutes, lasting afterwards from several minutes to one hour. To prolong the effect, after elimination of pain, the device action can be continued at low or high frequencies: Indications: sharp pain due to disease and lesion of the muscular-skeletal system in acute period and pathological condition of the peripheral nervous system.

Auxiliary therapeutic regimes:

- **77.10** - in this regime, alternation of pulses with frequencies of 77 and 10 Hz, occurs with equal intervals. It produces obvious relaxing effect in the form of reducing the wakefulness level, induces relaxation and drowsiness. It can be effectively used for elimination of pain, in sleep disorders, and anxiety conditions.

77.AM - in this regime, pulse alternation occurs with the frequency of 77 Hz, with equal intervals and with even increment and drop of the

amplitude. This regime produces effects opposite to those of the regime "7710". It is effective when used as a preventive and treatment of physical and mental fatigue, for emotional stress, or depressions.

5.1.4. The MED programme

The **MED** (Minimal Effective Dose) programme will be applied for intense physical or mental work; in physical or mental strain, in chronic fatigue syndrome, difficulties getting up in the morning, drowsiness, difficulty concentrating, and as preventive measure in cold and flu seasons.

5.5 FOLL Regime

FOLL regime is based on the method developed by R. Foil. The Foil method is a method of electropuncture diagnosis through electric channels for evaluation of functional condition of all internal organs of the human body. The method is also intended for testing and selection of individual medicinal, homeopathic preparations and biologically active additives.

Attention! *The regime is intended for evaluation of functional condition of the organs and systems rather than diagnosings. We may discuss conditions when the function is reduced, normal or activated.*

The studies with the Foil method can be performed in several ways:

1. Express-evaluation of the functional condition by the end points of the meridians (which is enough for performing diagnostic procedures at home) (Supplement 1, Fig. 1, 2);
2. Evaluation of the functional condition by control or other points of meridians*;
3. Medicinal testing

Preparing for diagnosis

Two days prior to the diagnosis procedure, it is recommended that patient avoids tonics. On the day of the diagnosis, two hours before the procedure, the patient should avoid taking coffee, or tea, or food. Immediately before the procedure, it is recommended for patient to sit in a comfortable position and relax for about 15 minutes.

Prior to the session, remove all devices generating high-frequency electromagnetic fields (cell telephones, pagers, high-frequency ovens, TV-sets, irons, etc.). The patient will have to remove jewelry, glasses, and a watch. During the examination, the patient must be seated or reclining comfortably.

Medicinal testing

The first measurement of the parameters will be performed with no medication.

Then the substance to be tested will be placed into the contour of the passive diagnostic electrode and the measurement will be repeated for the same points.

Attention! *Do not place the samples under study into the passive electrode without packaging them first, as it is not recommended to wash the electrode, whereas particles of the sample remaining on the electrode surface will distort values of measurements obtained in subsequent diagnosis.*

Comparing the parameters obtained, we may conclude on the fact how the substance under study affects the state of the meridians.

If necessary, we may continue the testing a different medicine.

Analysis of the results obtained

For the express-diagnosis, the normal values are about 50-65 units. Values over 65 units indicate hyperfunction of inflammation; whereas values below 50-30 units are specific for hypofunction of degeneration condition; values lower than 20 units indicate atrophy or complete failure of the function.

For the express-diagnosis using the arrow drop effect, the difference between the maximal and subsequent values must not exceed 5 units (irrespective of the measurement sign); if the difference is over 5 units (irrespective of the measurement sign), this will indicate activation of pathological processes in the organs located at a given meridian.

For medicinal testing: if the parameters obtained for the sample under study are within the range of normal values (or nearly normal) for a given patient, then the substance under study will produce optimal effect upon the organism. And if the parameters differ considerably from the average value, then the substance under study will not be recommended for this particular patient.

5.6. BIOFOLL Regime

The BIOFOLL regime is based on the method developed by R. Foil (see Section 5.5. FOLL Regime). BIOFOLL is a modification of the R. Foil classic method; it differs by preliminary determining of testing voltage in In-Tan point.

This improvement allows you to take into consideration individual electric conductivity in testing which allows to obtain more precise parameters from the BAPs and requires no wetting of electrode prior to testing the point. The scale of the current under measurement and severity of pathological condition corresponds to Foil's scale system. The method is also recommended for testing choosing medicinal, homeopathic preparations as well as biologically active ingredients for individual patients. The medicinal testing is based on the remote action phenomenon, i.e. the device records the responses of the body to remote material objects.

Attention! *The regime is intended for evaluation of functional condition of internal organs and systems rather than diagnosis.*

The studies can be performed as follows:

- express-evaluation of the functional condition by meridian end points (this will be enough for a preliminary evaluation when testing at home) (Supplement 1, Figures 1, 2);
- medicinal testing;
- evaluation of the functional condition by the control and other points of meridians*.

Preparing for the study

Two days prior to the diagnosis procedure, it is recommended that patient avoids tonics.

On the day of the diagnosis, two hours before the procedure, the patient should avoid taking coffee, or tea, or food. Immediately before the procedure, it is recommended for patient to sit in a comfortable position and relax for about 15 minutes. Prior to the session, remove all devices generating high-frequency electromagnetic fields (cell telephones, pagers, high-frequency ovens, TV-sets, irons, etc.). The patient will have to remove jewelry, glasses, and a watch. During the examination, the patient must be seated or reclining comfortably.

** the methods of diagnosis by the control and other points of channels are described in detail in the reference to this topic. These techniques, in their operation with the device, do not differ from the express-evaluation but demand serious theoretical and practical training of the operator-physician performing the diagnosis and will not be discussed in this Instruction.*

5.7. The BIOREPER regime

Bioreper is a method of functional electropuncture auricular diagnosis (on external ear). The study will be performed attesting voltage individual for each patient, i.e. with due consideration of individual electric conductivity.

Attention! *The regime is intended for evaluation of functional condition of internal organs and systems rather than diagnosis. We can discuss conditions when the function is reduced, normal or activated.*

Highly significant will be findings for specific organs (existence of points representing concrete organs).

The technique allows us to reveal pathological conditions at "pre-disease" stage, select the optimal treatment procedure and examination, to evaluate functional condition of diseased organs and systems in dynamics, when performing another testing. Due to low current (lower than 15 uA) in measurement points, no morphological changes occur.

5.8. The Mini AC regime

MiniAC is a method of functional electropuncture diagnosis within the miniacupuncture systems of the hand, scalp, etc. The study will be performed at voltage levels individual for each patient, i.e. with due consideration of individual electric conductivity of tissues at a given moment.

Attention! *The regime is intended for express-evaluation of functional conditions of internal organs and systems rather than diagnosis.*

The technique allows you to evaluate functional condition of diseased organs and systems in dynamics, when performing another testing.