

DETA

Device composed of electroacupunctural diagnostics, pharmacological testing, electroacupunctural, electromagnetic, quantum and bioresonance therapy units

# "DETA-Professional"

Passport

**Operating Manual and Guidelines** 

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## **Description of operation**

### Purpose

Medical device **"DETA-Professional"** TY 9444-001-27970873-2006 (hereinafter referred to as the device) allows you to:

measure electrical parameters of biologically active zones (BAZ) according to the method of R. Voll;

measure electrical parameters of biologically active points (BAP) using the method according to R. Voll (including corporal, head, and auricular points);

conduct topical, syndromic, nosological and local (assessment of the damage level to the spine, sinuses, teeth) diagnosis;

conduct pharmacological testing (assessment of various pharmacological and non-pharmacological drugs for the human body);

conduct pharmacological testing using the built-in **"DETA-Pharma"** pharmacological selector;

carry out test measurements of cosmetics, jewelry, etc. for biological compatibility with the human body;

conduct vegetative resonance testing according to the method of H. Schimmel;

carry out energy information transfer (reprinting) of medicinal properties of various drugs (homeopathic remedies, nosodes, organ drugs, toxins, etc.) on various carriers (water, alcohol, homeopathic grain, etc.) with the possibility of preparing autonosodes;

conduct electroacupunctural therapy;

conduct electromagnetic therapy;

conduct quantum therapy;

conduct bioresonance therapy according to the method of F. Morrell and E. Rashe;

conduct complex therapy (mode where bioresonance therapy is conducted together with electromagnetic therapy with connected autonosode and drugs from the pharmacological selector).

## Field of application

Field of application: for specialists working in specialization "040132 Regenerative medicine" in accordance with the order of the Ministry of Health of Russia No. 241 of 9 June 2003 "On the notation of specializations in health care institutions of the Russian Federation"; centers for homeopathy, reflexology and health care institutions, etc.

Designation of device in order: medical apparatus for electroacupunctural diagnostics, pharmacological testing, electroacupunctural and electromagnetic therapy **"DETA-Professional"**, model 2011.



## **Specifications**

Diagnostics mode:	
Measurement method	R. Voll, H. B. Schimmel
Range of variation in conductivity readings, cu	from 0 to 100
Accuracy of measurement, %	<u>+</u> 1
Voltage on the diagnostic probe	
relative to hand electrode, V	not more than 1.25
Short-circuit current, uA	not more than 12.5
Sound in diagnostic mode	tone change
Sound control	on/off
Low power indication	"LOW POWER" LED
Vega test on indication	"VEGATEST" LED
Electroacupunctural therapy mode:	

## Output signal form \_\_\_\_\_\_positive polarity,

1 5	
	negative polarity,
	bipolar
	bipolar inverse
Maximum pulse amplitude at load of 100 kOhms, N	/300
Pulse duration at level of 0.5, ms	1
Range of pulse repetition rate, Hz	
Maximum error of frequency setting, %	not more than ±5

## Electromagnetic therapy mode:

Output signal form	bipolar pulse burst
	with a high frequency
Range of pulse packet repetition rate, Hz	0.1-100
Maximum frequency error of frequency setting, %	not more than ±5

## Electronic pharmacological selector:

Number of electronic copies of homeopathic drugs	22,800
Number of free cells to append homeopathic drugs	25,200
Maximum number of drugssimultaneously issued at output	

## Quantum therapy regime:

Dynamic range, Hz	0.1-1,100
Maximum error of frequency setting, %	not more than ±5
Optimum range, nm	
	590, 660, 880

#### **Power:**

AC adapter	220V/50Hz 12V/0.5A
Current consumption, not more than	, A0.33
Material of hand electrode and tip	
of the universal probe	brass LS59-1 mark
	State Standard GOST 931, GOST494
PC connection	assembly interface "BS-7"
Average service life, years	not less than 5
Dimensions (without packaging), n	nm240 x 425 x 110
Weight:	
without accessories and spare parts, I	kgnot more than 2
as a whole unit, not more than, kg	not more than 7
Operating conditions:	
ambient temperature	from 10 to 35 °C
relative humidity	80% at 25 °C.

## Package contents

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Medical device "DETA-Professional"	1 рс.
Hand electrode sleeves	2 pcs.
Foot electrode plates	2 pcs.
Universal diagnostic probe	1 рс.
Honeycomb cell for ampules	1 рс.
Stand-dish	
Roller electrodes set	
Beaker with lid	1 рс.
Electrode for recording on water	1 рс.
External quantum therapy attachment	1 рс.
Detachable antenna unit	1 рс.
"BS-7" interface block	
Power unit	1 рс.
Cable set	1 set
"EAVPRO" program CD-ROM V.4	
Documentation set with descriptions and methods	



## **Rules for using the device**

## **Operating conditions**

#### 1. Requirements for working conditions

1. Floor coverings in the workplace should not accumulate static charge. In bare feet, the patient receives the static electricity, which leads to incorrect results of diagnostic measurements.

2. If the room is covered with carpets of artificial material, to eliminate the static charge, they must be processed at least twice a week with antistatic agent.

3. The chair should be wood and coated with cotton fabric. The use of synthetic materials is not permitted.

4. Other high-frequency or X-ray installations must not be located in adjoining rooms.

5. The patient must be at least 1.5 m from the television and radio equipment, lighting and electrical appliances. Otherwise, patients with sensitive brains immediately record higher values acupuncture points.

## ATTENTION! Static electricity! ATTENTION! Cover floor with antistatic agent!

### 2. Device maintenance

Medical device "DETA-Professional" is designed and manufactured using the latest advances in technology and requires careful handling. Follow these guidelines: this will help you fulfill the warranty conditions and provide a long, fault-free service life of the product.

1. Keep the device and all its parts and accessories out of reach of children.

2. Protect the device and accessories from moisture. Precipitation, humidity and all types of liquids contain minerals which cause corrosion of electronic circuits.

3. Do not use or store the device in dusty or dirty areas. This can cause damage to moving parts of the device.

4. Do not store the device in hot areas. High temperatures can reduce the service life of electronic devices and warp or melt plastic parts.

5. Do not store the device in cold areas. With temperature increasing to normal levels, condensation may form inside and damage electronic circuit boards.

6. Do not attempt to open the device.

7. Protect the device from the jolting and knocks; do not drop the device.

8. Do not use harsh chemicals, solvents for dry cleaning or strong detergents for cleaning the device.

9. Only use the antenna supplied for the device. Other antennas may result in damage to the device.

In the event of malfunction of any part of the device, contact the manufacturer. The company's employees will assist you and undertake all work required.

# .

#### Warning: The "LOW POWER" LED signals reduced supply voltage. In this event, correspondence to the device's technical parameters with the standards indicated cannot be guaranteed.

## 3. Getting started

1. Connect the AC adapter to the 12V socket on the device. The polarity of the voltage does not matter.

2. Insert the AC adapter into an wall socket with 220V voltage.

3. Turn on the device with the "12V" switch. On the front of the device, the "PROB" LED should illuminate.



Attention: After finishing work with patients, do not forget to switch off the machine with the 12V switch and unplug the AC adapter.

## **Description of operating modes**

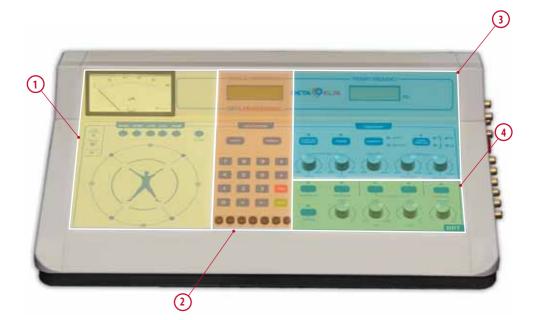
The "DETA-Professional" medical device includes the following modules (see fig. 1.):

**Diagnostics module** - diagnostics according to R. Voll and vegetative resonance test according to H.W. Schimmel (see fig. 4).

**Therapy module** - electroacupunctural, electromagnetic and quantum therapy (see fig. 4).

Bioresonance therapy module - bioresonance therapy (see fig. 5).

**Electronic pharmacological selector module** - bioresonance therapy (see fig. 6).



- 1 Diagnostics module
- 2 Electronic pharmacological selector module
- 3 Therapy module
- 4 Bioresonance therapy module

#### Fig. 1. External view of the device

On the right side of the device are sockets to connect the individual modules together (see fig. 2).



#### Fig. 2 Right side view

- "INPUT BRT" bioresonance therapy unit input;
- "OUTPUT BRT" bioresonance therapy unit output;
- "SEL" electronic pharmacological selector output;
- "AKTIVE" active electrode output. Connected to the "PROBE" socket;
- "PASSIVE" 2 passive electrode outputs;
- "PROBE" universal diagnostic probe input connection;
- "LH" "left hand" output for quadrant leads;
- "RH" "right hand" output for quadrant leads;
- "LF" "left foot" output for quadrant leads;
- "RF" "right foot" output for quadrant leads.



#### Fig. 3 Rear view

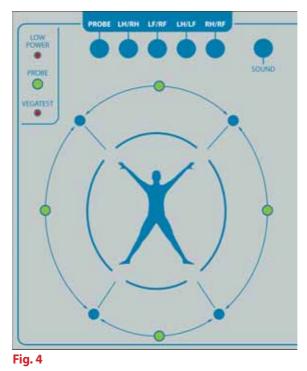
#### On the rear of the unit (see fig. 3):

- to the right is the power socket and "12V" switch;

- in the center is the **"AERIAL"** socket for remote antenna connection to carry out electromagnetic therapy, the **"QUANTUM"** socket to connect the quantum therapy attachment and a socket to connect the **"BS-7"** interface block. The device connects to a computer via an external interface block, made according to state standard GOST R 50267.0 for medical products.

**Note.** In some models, the device socket for connecting the **"BS-7"** interface block may be found on the left side of the device.

## **Diagnostics mode**

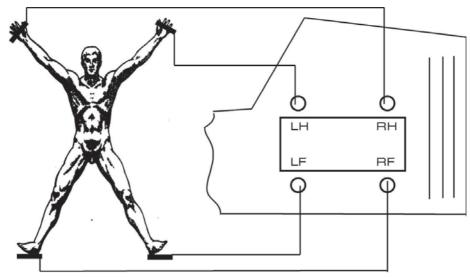


"DETA-Professional" medical device allows diagnosis according to methods by R. Voll and H.W. Schimmel. The diagnostic panel to control diagnosis mode is shown in fig. 4. On the device panel between the leads are LEDs indicating switched on leads in green. In electroacupunctural therapy, the "PROB" LED changes to red. Red indicates the feed of therapeutic pulses for carrying out electroacupunctural therapy. The outputs to connect the electrodes are shown in fig. 2.

Each of the methods is presented in the classic author version.

#### 1. Quadrant leads

In the diagnostics mode according to R. Voll, the device allows measurements by quadrant leads. To do this, connect "LH" (Left Hand) and "RH" (Right Hand) sockets, located on the right side of the apparatus (see fig. 2) with the wires to the hand electrodes, and the "LF" (Left Foot) and "RF" (Right Foot) sockets to the foot electrodes. Set the switch to "Therapy - Diagnostics" (see fig. 4) the "Therapy" panel to the "Diagnostics" position. Give the patient the sleeves of the hand electrodes place the feet on the foot plate electrodes (see figure 3.1.). The connection diagram is shown in fig. 5.



#### Fig. 5

The measurements are carried out as follows: Hand-hand: button on **"LH-RH"** panel. Foot-foot: button on **"LF-RF"** panel. Left hand-left foot: button on **"LH-LF"** panel. Right hand-right foot: button on **"RH-RF"** panel.

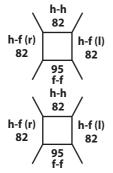
No.	Sequence of measuring EP BAZ of skin, lead and polarity of the diagnostic current	Relationship with organs and tissue sys- tems
1	right hand - left hand (+) (-)	Heart, lungs, esophagus, cervicothoracic area of the spine
2	right foot- left foot (+) (-)	Urogenital organs, rectum, in lumbosacral area of the spine
3	left hand - left foot (+) (-)	Heart, bronchi, lungs, stomach, descending section of the transverse colon, spleen, pan- creas, kidneys, urogenital organs
4	right hand - right foot (+) (-)	Liver, gall bladder, lungs, bronchi, stomach, ascending section of the transverse colon, ap- pendix, kidneys, urogenital organs

Quadrant measurements are used to carry out preliminary or topical diagnosis, the results of which can be further confirmed or refuted by electroacupunctural diagnostics.

For example, in the case of establishing large deviations in TL values from lead norms in right hand-foot, relating with the liver, gall bladder, appendix and right ovary, special attention in carrying out differential diagnosis should be paid to the measurement of control points of meridians of the liver, gallbladder, colon, bladder, etc.

The following are typical examples of the use of topical quadrant diagnosis:





Preliminary diagnosis or condition:

Adnexitis (prostatitis)

Chronic appendicitis or right-side adnexitis



When interpreting the results of topical diagnosis, the difference in values of measured levels of individual leads must be taken into account.

The difference between the measured levels of leads, amounting to 6 or more cu, is significant evidence of damage in the corresponding quadrant. In that case, if the difference in measured levels of all leads is less than 6 cu, only a judgment about the type of non-specific reactivity of the body and tone of the vegetative nervous system can be made.

### 2. Switching the sound on and off in "Diagnostics" mode

The sound is controlled by the  $\square$  icon on the "Therapy" panel (see fig. 7).

The position corresponds to "Sound on". The "MANUAL" position corresponds to "Mute".

#### 3. Diagnostics with the pharmacological selector

On the diagnostics panel, press the **"PROBE"** button (see fig. 4). In this case, the **"PROB"** LED illuminates. On the **"Therapy"** panel, set the **"THERA-PY-DIAGNOSTICS"** key to the **"DIAGNOSTICS"** position (see fig. 4).

To work with the pharmacological selector, it is necessary:

- to connect the **"PASSIVE"** socket (see fig. 2) with the manual electrode sleeve;

- to connect the selector output **"SEL"** (see fig. 2) to the second socket **"PASSIVE"**;

- insert the diagnostic probe into the socket "PROBE".

Control with the pharmacological electronic selector is described in the chapter **"Electronic medical selector"**. Diagnosis is carried out by the method according to R. Voll.

#### 4. Diagnostics with ampule drugs

On the diagnostics panel, press the **"PROBE"** button (see fig. 3). In this case, the **"PROB"** LED illuminates. On the **"Therapy"** panel, set the **"THERA-PY-DIAGNOSTICS"** key to the **"DIAGNOSTICS"** position (see fig. 4).

For work it is necessary to connect the **"PASSIVE"** socket (see fig. 2) with the manual electrode sleeve; Place the resonator on the stand and connect to

the second socket **"PASSIVE"** (see fig. 2). Insert the diagnostic probe into the socket **"PROBE"**. To conduct a pharmacological test, place the ampule in the resonator. Instead of ampule drugs, cosmetics, jewelry, and allopathic drugs can be tested. If they are being testing, it should be taken into consideration that the reaction point occurs later than when testing homeopathic drugs. Diagnosis is carried out by the method according to R. Voll.

### 5. Diagnostics according to H.W. Schimmel

On the diagnostics panel, press the **"PROBE"** button (see fig. 4). In this case, the **"PROB"** LED illuminates. On the **"Therapy"** panel, set the **"THERA-PY-DIAGNOSTICS"** key to the **"DIAGNOSTICS"** position (see fig. 4).

For work with the pharmacological selector, it is necessary to connect the "**PASSIVE**" socket (see fig. 2), located on the right side of the device with the with the hand electrode sleeve; Connect the selector output "**SEL**" (see fig. 2) to the second socket "**PASSIVE**"; Insert the diagnostic probe into the socket "**PROBE**". Control with the pharmacological electronic selector is described in the chapter "Electronic medical selector".

For diagnosis according to the vegetative resonance test method, it is necessary to select the reproduced point. To switch on the vegetative resonance "VRT" test mode, it is necessary to place the probe on the point to be measured, and then press and hold button "2" on the universal probe (see fig. 6) for about 1 sec, until the **"VEGATEST"** "(see fig. 4)" LED on the device illuminates. Button "2" does not work while the probe is not placed on the point to be measured (indication less than 3 cu).

Diagnosis is carried out in accordance with traditional method developed by Dr H. Schimmel.



- 1 button without function (reserve)
- 2 button for "VRT" mode or switching active points in the "EAVPRO" program

#### Fig. 6 Universal diagnostic probe

To turn off the vegetative resonance "VRT" test mode, it is necessary to remove the probe from the point being measured, press again and hold (approximately 1 sec) button "2" until the **"VEGATEST"** LED turns off. The device will transfer to diagnostic mode of the method by R. Voll.

### ATTENTION! "Extension" of the scale is 80 units. Not adjustable.

## "Electroacupunctural therapy" mode

The appearance of the module for electroacupunctural and electromagnetic therapy is shown in Fig. 7.



#### Fig. 7

1. Before switching on the therapy, it is recommended to set the minimum pulse amplitude by placing **"INTENSITY"** to the **"MIN"** position.

2. Set the polarity of the pulses with **"FORM IMPULSE"** and **"POLARITY"** buttons.

3. Set the desired mode of the device with the "AUTO-MANUAL" key:

- "AUTO" - corresponds to the "wave swings" in the range 0.1 to 100 Hz;

- **"MANUAL"** - corresponds to the manual frequency setting in the range 0.1 to 100 Hz.

#### 4. "AUTO" mode

With the **"SPEED"** knob of **"CHANGE"** unit set the required frequency tuning time on the range in "wave swings" mode. For work with children, it is recommended to set the minimum tuning time of 1 min. For older people, set the maximum 3 minutes.

Switch on the "wave swing" mode by setting the **"AUTO-MANUAL"** switch position to **"AUTO"**.

Switch on "electroacupunctural therapy" mode by setting the **"THERAPY-DIAGNOSTICS"** switch to the **"THERAPY"** position. The red LED will flash at the rate of pulse repetition. In this mode, the "RANGE" knob does not work.

5."MANUAL" mode with the possibility of wave swings in a small range Switch on the manual frequency setting mode by setting the "AUTO-MANUAL" switch position to "MANUAL".

Set the **"THERAPY-DIAGNOSTICS"** switch to the **"THERAPY"** position.

With the frequency change knobs **"ROUGHLY"** and **"PRECISELY"** of the **"FREQUENCY"** unit, set the initial tuning rate (e.g. 10.00 Hz).

Further, by turning the **"RANGE"** knob of the **"CHANGE"** unit from **"MIN"** clockwise, set the final tuning frequency (e.g. 10.50 Hz).

After that, the device itself will begin to tune the frequency in a linear variation in the range  $10.00 \rightarrow 10.50$  Hz and back  $10.50 \rightarrow 10.00$ .

With the **"SPEED"** knob of **"CHANGE"** unit set the required frequency tuning time in this range.

#### 6. "MANUAL" mode without wave swing

Switch on the manual frequency setting mode by setting the **"AUTO-MANUAL"** switch position to **"MANUAL"**.

Set the **"THERAPY-DIAGNOSTICS"** switch to the **"THERAPY"** position.

Set the **"RANGE"** and **"SPEED"** knobs of the **"CHANGE"** unit to the far left position.

The pulse repetition rate is set with the **"ROUGHLY"** and **"PRECISELY"** knobs **"FREQUENCY"** unit. The red LED will flash at the rate of pulse repetition, and the liquid crystal **"THERAPY FREQUENCY"** display shows the exposure frequency.

7. To conduct electroacupunctural therapy by zone, connect the electrodes to the sockets **"ACTIVE"** and **"PASSIVE"** (see fig. 2). The passive electrode is connected to the **"PASSIVE"** socket and the diagnostic probe is used as active.

8. The intensity of the impact by zone is set by the sensations of the patient, gently rotating **"INTENSITY"** knob clockwise until there is a sensation of goose bumps. Therapy should not cause pain. During therapy on acupuncture points, it is necessary to set the intensity to one third of the intensity of the therapy prescribed for zones. 9. At the end of therapy, switch the device to diagnostics mode by setting the **"THERAPY-DIAGNOSTICS"** switch to the **"DIAGNOSTICS"** position.

10. The guidelines for electroacupunctural therapy provide information on the therapy method by zones and by points.

## "Electromagnetic therapy" mode

1. Set the **"THERAPY-DIAGNOSTICS"** switch to the **"THERAPY"** position. The control panel is shown in fig. 7.

2. To activate "electromagnetic therapy", the antenna must be connected to the **"AERIAL"** socket.

3. Set the **"MANUAL"** mode of the device with the **"AUTO-MANUAL"** key: this corresponds to the manual adjustment of the frequency range from 0.1 to 100 Hz (in electromagnetic therapy, **"AUTO"** wave swing mode is not recommended).

4. Set the **"RANGE"** and **"SPEED"** knobs of the **"CHANGE"** unit to the far left position.

5. The red LED will flash at the rate of pulse repetition. The **"THERAPY FREQUENCY"** LCD display shows the exposure frequency. The pulse repetition rate in normal mode is set with the **"ROUGHLY"** and **"PRECISELY"** knobs **"FREQUENCY"** unit.

6. Switch on the "electroacupunctural therapy" mode by setting the **"THERAPY-DIAGNOSTICS"** switch to the **"DIAGNOSTICS"** position.



Attention: In electromagnetic therapy mode, it is not recommended to change the position of the "RANGE" and "SPEED" knobs of the "CHANGE" unit. The effectiveness of this therapy is significantly higher than electroacupuncture. "Withdrawal frequency" effects may occur.



Attention: In electromagnetic mode, the "INTENSITY" knob does not work. The impact of the electromagnetic field must be strictly measured by dose. Electroacupunctural therapy is not switched off in this mode. Therefore, to avoid accidental electric shock, it is recommended to set the "INTENSITY" knob to the "MIN" position. 7. The guidelines for electromagnetic therapy provide information on conducting electroacupunctural therapy.

ATTENTION! Do not leave the unit in "THERAPY" mode unattended. This could lead to accidental connection of the patient to the electrodes or closing the electrodes circuit.

## "Complex therapy" mode

Complex therapy is a synthesis of bioresonance and electromagnetic therapy. The method is well proven in treating cancer patients. This therapy effectively removes toxins, poisons, heavy metals, radionuclides, drugs, and kills germs, bacteria and fungi. It provides many new opportunities for effective treatment of drug, tobacco and alcohol addiction, as well as defining sideeffects of pharmacological agents and their elimination.

Complex therapy in bioresonance therapy mode with attached autonosode and drugs from the pharmacological selector provides the possibility of connecting electromagnetic therapy which can cure diseases that were previously considered incurable.

On the "Therapy" panel, set the **"THERAPY-DIAGNOSTICS"** key to the **"DIAGNOSTICS"** position (see fig. 7).

Switch on complex therapy by pressing the "COMPLEX THERAPY" key.

Connect the antenna device to the "AERIAL" socket.

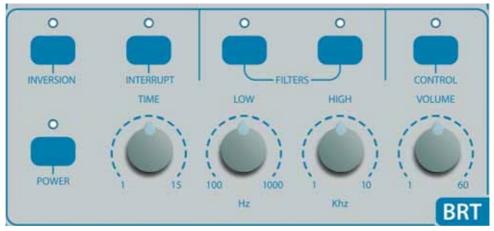
Switch on BRT mode with the **"POWER"** on the **"BRT"** panel (see item 5.5). In this mode, "Electromagnetic therapy" works, but the "Electroacupunctural-therapy" mode does not.

At the end of therapy, switch the device to diagnostics mode by switching off BRT.

The doctor selects the rules for using this mode, using the guidelines for the use of electromagnetic therapy and bioresonance therapy.

## "Bioresonance therapy" mode

The appearance of the module for bioresonance therapy is shown in Fig. 8.



#### Fig. 8

In bioresonance therapy mode, the device works with electromagnetic waves of the human body. The aim of this therapy is to neutralize the pathological oscillations in the patient and to activate phylactic power of the body. No external energy (low-frequency, ultrasonic, etc.) is used, and all variations are physiological.

This form of therapy is especially effective in cases where the achievement of therapeutic success is impossible with traditional methods or involves a lot of time or expense.

Above all, BRT helps with chronic degenerative diseases, rheumatism, weakening of the immune system, allergies, pain of all types, neuralgic pains, rheumatic neuralgia, cancer and postoperative pain, indolent wounds, asthma, bronchitis, gastritis, duodenitis, ulcers, and pain resulting from malignant tumors in the postoperative treatment.

The therapeutic effect may occur on any organs and organ systems. Diseases where good therapeutic success has been achieved: migraine, chronic and acute diseases of the lymphatic system, heart and cardiovascular disease, pancreatitis, pancreatic cysts, uterine and ovarian cancers, diabetes, adults and children, cystitis, nephritis, scarring, pre-operative and post-operative treatment, allergies, sleep disorders, and all types of toxic effects including poisoning, susceptibility to infections in children. Bioresonance therapy is permitted by the Russian Ministry of Health No. 2000/47.

On the **"Therapy"** panel, set the **"THERAPY-DIAGNOSTICS"** key to the **"DIAGNOSTICS"** position (see fig. 7).

Switch on BRT mode with the **"POWER"** button on the **"BRT"** panel (see fig. 7) or button "1" (see fig. 6).

The doctor selects the rules for using this mode, using the guidelines for the use of bioresonance therapy.

#### 1. Bioresonance control

The bioresonance therapy module control mode is needed to verify its performance.

Switch on BRT mode with the **"POWER"** button on the **"BRT"** panel (see fig. 8). In this case, the corresponding LED illuminates.

#### Set "VOLUME" to 60 units.

Switch on the "Control" mode with the "Control" button. In this case, the corresponding LED illuminates and an audible signal sounds.

Switch on the "Inversion" mode with the **"INVERSION"** button. The sound will end, signaling pathological information suppression mode. Switch on the "Inversion" mode with the **"INVERSION"** button again.

Turn on the LF filter by pressing the **"LOW"** button of the **"FILTERS"** block. Adjustment of the **"LOW"** knob verifies the functioning of LFF (the sound should fade when the knob is rotated in the direction of 100). Turn off the LF filter. Turn on the HF filter by pressing the **"HIGH"** button of the **"FILTERS"** block. Adjustment of the **"HIGH"** knob verifies the functioning of HFF (the sound should fade when the knob is rotated in the direction of 10). Turn off the HF filter.

Switch on the "Interrupt" mode with the **"INTERRUPT"** button. Set the **"TIME OF INTERRUPT"** knob to position "1". There should be a long beep and a short pause. At position "15" there should be a short beep and a long pause. Switch off "Interrupt" mode.

Switch off "Control" mode.

Turn off BRT.

#### 2. "REPRINTER" mode

Substances used for recording the properties of original medicines may include distilled water, saline, 40% alcohol solution, 20% glycerol solution, hu-

man blood or plasma, lactose, wax, metals such as aluminum, colloid solution and other materials.

Connect the cup with selected drugs or pharmacological selector to the **"INPUT BRT"** socket.

Connect the cup with the substance for recording to the **"OUTPUT BRT"** socket.

Set the **"INTERRUPT"**, **"FILTERS"** and **"CONTROL"** switches to the "off" position. The corresponding LED indicators should not illuminate. Switch on **"INVERSION"** mode when preparing "inverse autonosode".

Switch on BRT mode with the **"POWER"** button on the **"BRT"** panel (see fig. 7). In this case, the corresponding LED illuminates.

Set "VOLUME" to 30 units.

To erase information from media, it is necessary to connect the cup with the material for recording to the **"INPUT BRT"** and **"OUTPUT BRT"**, and turn on **"INVERSION"**. At the same cup, the selected drugs or pharmacological selector should be switched off.

The transfer process takes 1-2 minutes, depending on the type of medium and its volume.

Disconnect the cup with the substance for recording from the **"OUTPUT BRT"** socket.

In the case of preparing autonosode, it is necessary to follow the guidelines in the "**DETA-BRT**" user manual.

## Electronic pharmacological selector

The appearance of the module of the electronic pharmacological selector is shown in Fig. 9.



#### Fig. 9

Switch on the selector with the **"POWER"** button. Connect "OUTPUT BRT" socket and "PASSIVE" socket with a short cable.

If necessary, turn on the back light indicator with the **"LIGHT"** key.

On the **"MEDICAL PREPARATIONS"** display, the message "01 N\_\_\_\_p\_ input N" should appear. On the numeric keypad, enter the number of the drug using a list of drugs (when you enter a wrong number, amend it by pressing the " $\leftarrow$ " key). Press "\*". Now enter the cell number of potency. After this, the selector will show the name of the drug. The drug is not connected to the chain.

To connect the drugs to the chain, you must press **"OUT"**. On the selector a message will display "Drugs issued: N". N - indicates the number of drugs connected to the chain. Drugs can be disconnected by pressing "OUT" again.

To enter a new drug instead of an old one, it is necessary to enter the number of the drug again. To enter a new product which will be tested together with the old one, it is necessary to press the

"<sup>†</sup>" button and re-enter the drugs number. The selector permits connection of up to 18 drugs simultaneously. Moving through the list of selected drugs with the "<sup>†</sup>" and "<sup>↓</sup>" keys. Removal of a drug from the list of those connected takes place by entering a zero.

The medical device "**DETA-Professional**" electronic pharmacological selector is supplied as a full version.

The writing is done for all cells at the selected address starting 4,400. To write information about drugs, the drugs must be connected to the **"INPUT"** socket of the selector. Press "WR". For 2-3 seconds, the display will show "Drug write mode". The selector will then switch to write drugs mode: The display will show the message "N\_\_\_\_\_\_ write Enter number". To continue, it is necessary to enter the write address and press the "\*" key. If the address is occupied, the selector will show "N\_\_\_\_\_\_ write Occupied" and find the closest free address. If the address is free, the selector will write "N\_\_\_\_\_\_ write Free". To write to this address, it is necessary to press the "WR" key. The selector will display "Save" and proceed to the next address. In the event of an error, the selector will display "Write error" and proceed to the next address.

When entering addresses from the "Full" list of drugs or independently written, their names will not appear on the selector display. At the same time, the issue of drugs will take place on pressing the "OUT" button. Therefore, it is important to enter the cell addresses correctly and maintain lists of recorded drugs with care.

To leave write mode, press the "OUT" key. For 2-3 seconds, the display will show the message "Leaving write mode".

The selector may be controlled by a computer using "EAVPRO" software Version 4.0 for Windows XP.

Attention! When working with a computer, the computer must be connected to an isolated power supply unit corresponding to appropriate medical requirements for electrical safety.



## **Requirements for the patient**

### 1. Three days before seeing the doctor, the patient should:

- stop taking drugs, herbal infusions (except for hormone-dependent patients and patients receiving hypotension and cardiac drugs);

- discontinue physiotherapy;

- exclude mud therapy and vitamin therapy, radiographic and fluoroscopic examinations, invasive investigative methods and ultrasound .

### 2. Good personal hygiene should be maintained:

- the day before visiting the doctor, do not use cosmetics or perfume;

- ideally, do not wear synthetic clothes;

- hands and feet should be clean and nails trimmed.

### 3. When the patient is with the doctor:

- he/she removes all clothes, and put on a clean white cotton dressing gown, not starched;

- he/she removes jewelry, watches, sunglasses, hair clips, dentures, etc.;

- he/she sits on a wooden stool, not varnished or painted, and puts his/her feet on a wooden rest (an ordinary chair covered with a white cotton sheet can be used, and instead of a rest, thick white cardboard).

# Search technique and electrical parameter measurement of biological active points

To determine the BAP topography, the device contains device arrangement combined with acoustic and indicator display systems.

When using the acoustic indication system, the location of the center of the BAP is determined by the nature of change in tone.

The location of the center of BAP can be determined by the indicator deviation of the electrodiagnostic device on the indicator display of the diagnostics unit.

### In EAV, three techniques are used to find and measure the EP BAP:

- vertical;
- tangent;
- lines.

The vertical technique is used for searching and measuring EP BAP, localized on the feet, ear, scalp and torso. With its use, the "active" electrode probe is set at an angle of 90° to the assumed location of BAP, then with weak pressure on the skin, moved along the meridian, bottom-up, to define the center point.

The tangent technique is applied in cases when searching and measuring EP BAP localized on the fingers. With this technique, the "active" electrode probe is set at the center of EAP at an angle of 45 degrees.

The line technique is used to search for and measure the BAP localized in skin folds, such as on the face, neck, back and buttocks. In this case, the "active" electrode probe is moved while held at a slight angle in the area of the assumed location of the BAP, the center of which is determined by the nature of change in tone.

Recently, with the introduction of electro-spherical electrodes 3 mm in diameter with a cross cut, EAV experts developed a universal technique of measuring EP BAP. With this EP measurement technique, the "active" electrode probe can be positioned at the center of BAP at any angle, since the sphere of the electrode probe provides a reliable contact with it. After establishing contact with the BAP, the "active" electrode probe can be rotated in a clockwise direction, at the same time increasing the force of pressure on the BAP.

The transition from search to measurement of BAP electrical parameters is carried out after determining its center, by a subsequent change in pressure on it with the "active" electrode probe, before moving to the "measurement plateau".

Moving to the "measurement plateau" means achieving such pressure with the "active" electrode probe on the BAP where the increase in pressure on it no longer causes a further rise of the electrodiagnostic device's indicator. The optimum pressure of the "active" electrode probe on the BAP is a value that lies within the following limits:

- for an electrode of 2 mm diameter 500-1,000 gram force;
- for an electrode of 3 mm diameter 600-1,100 gram force;
- for an electrode of 4 mm diameter 700-2,000 gram force.

Moving to the "measurement plateau" takes place smoothly over 2-3 seconds, without jerking of the "active" electrode probe which could result in damage to the epidermis of the skin in the area of the BAP projection.

The skill of achieving the optimum pressure on the BAP and reaching the "measurement plateau" is acquired in the process of working with the electro-

diagnostic device and continuous improvement of measurement techniques for EP BAP.

In order to optimize and reduce the pressure on the BAP, the tip of the "active" electrode probe can be moistened with 0.9% sodium chloride solution, which improves the electrical contact of the probe with BAP and increases the reliability of the electroacupunctural diagnosis.

For convenience in moistening of the tip of the "active" electrode probe, some experts use a plastic container or a hollow ring containing electrolyte, which is worn on the thumb of the free hand of the examiner.

# Sequence of electrical parameter measurement of biological active points

The sequence of measuring EP BAP of the skin may be different depending on the purpose of diagnosis, and different authors recommend different point measurement sequences.

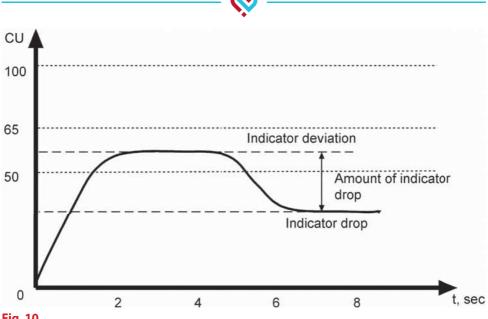
During electropuncture diagnostics in EAV, the following sequence of measuring EP BAP of the skin is used.

Examination begins with the measurement of EP BAP lymphatic system vessel to the BAP of the small intestine meridian with the right hand by placing a "passive" electrode in the left hand. After this, the "passive" electrode is placed in the right hand of the patient and measuring of the EP with BAP of the meridian of the spleen and pancreas consecutively to the BAP of the bladder meridian. In the same way, measuring of EP BAP takes place with the left hand and left foot.

# Interpreting electrical parameter measurement results of biological active points

One of the characteristic features of EAV diagnosis is that it is based on a unified system for assessing EP measurement results of allorgans, tissues and the interrelated biological active points.

Development of this system was preceded by a long period of experimental research aimed at finding statistically significant relationships between the values of individual EP BAP in patients with known forms of disease, its stages, and detectable morphofunctional and pathoanatomical changes in the corresponding organs and tissues.



#### Fig. 10

The result was the development of a device with a specially graded diagnostic scale on which to evaluate the nature of the damage to various organs and tissue systems. The scale is divided into 100 conditional units. Among the main diagnostic criteria used to interpret the results of electrical parameters of BAP measurements are three indicators (see fig. 10).

The first of them characterizes the type of reaction related to BAP of organs and tissue systems in response to irritation by the electric current, which shows a particular position of the indicator on the electrodiagnostic device. The maximum indicator deviation of the diagnostic device achieved when measuring EP BAP is conditionally denoted in EAV as the testing level (TL) of BAP.

For the state of an organ with an extensive inflammatory process, purulent process, or chronic process during the acute stage of the disease, the value of TL for BAP associated with that organ is equal to 100 cu.

For an acute or catarrhal inflammatory process: 99-90 cu.

For a locally limited inflammatory process: 89-82 cu.

In the initial stages of damage to the function of an organ or tissue system without an inflammatory process, the TL BAP is in the 81-66 cu range.

The condition of physiological tension correspond to the values of TL in the 65-51 cu interval, and at an "ideal" norm is 50±1 cu.

In the initial stages of a dystrophic process, the TL BAP value is 49-42 cu, and during its progression: 41-32 cu.

In destructive processes with partial atrophy of cellular structures of the organ, the TL BAP falls to values in the range of 31-22 cu, and in the event of complete atrophy or malignant degeneration: 21-0 cu.

The second indicator of results interpretation of BAP electrical parameters measurement is the effect of "indicator drop" (ID) of the device, which manifests itself by the electrodiagnostic device moving in the opposite direction from the established TL value during BAP measurement towards zero, and a change in the pitch of a sound indicator.

This indicator is proof of the development of functional or organic changes resulting from cellular destruction in organs and systems of the organism related to specific BAP.

In the absence of cellular destruction processes, the ID is equal to zero. A fall of the arrow by more than 5 cu indicates a pathological condition in the organ.

For example:

- in acute inflammatory processes with severe cellular destruction, the ID may be more than 20 cu;

- with moderate cellular destruction: 10-20 cu;

- in damage to the vegetative balance or neurohumoral regulation, and also latent inflammatory processes: 5-10 cu.

In analyzing the ID value, attention should be paid to the final position of the indicator on the diagnostic tool, if the drop ends below 50 cu. (e.g. from 80 to 40 cu). Such an indicator drop indicates a developing disease process accompanied by irreversible cell damage, leading to scarring, fatty or other degeneration of the organ.

An indicator drop not lower than 50 cu indicates retained functions of the organs and tissue systems related to the BAP.

Some specialists recommend assessing not only the amount, but also the speed of the ID, indirectly characterizing compensatory abilities and adaptive reactions of the body. For example, a sharp drop of the diagnostic device indicator (1-2 sec.), from the original TL towards zero, is characteristic of acute intoxication, accompanied by rapid depletion of compensatory abilities of the body and pronounced cell destruction.

The third indicator of results interpretation of BAP electrical parameters measurement is the dynamics of the arrow's behavior. Of great significance for correct diagnosis is the speed of its rise. The normal rise time for the arrow is ~3 sec. If the rise time is less, i.e. 1-2 sec, then this is evidence of toxic poisoning in the body. This may be the result of taking strong stimulant drugs. A slow rise of the arrow indicates fatigue of the body, or the patient received took sedatives or sleeping pills on the day of the examination.

For example, a rapid or very rapid effect of ID (1-2 sec.), expressed by fast movement of the electrodiagnostic device from the original TL towards zero, is characteristic of acute intoxication, accompanied by rapid depletion of compensatory abilities of the body and pronounced cell destruction.

At the same time, a slow ID, observed over 10 seconds or more, is most often found in chronic, slow-moving inflammation processes.

In addition to these diagnostic criteria, quantitative indicators should be taken into consideration in the practice of electroacupunctural diagnosis. For example, the observation ID for over 20 BAP in different meridians, and especially on the points of the meridian circulation, heart, endocrine system of the spleen, pancreas, liver and kidneys, as well as vessels, allergies and degeneration of nerve tissue, may indicate the following conditions:

- the prodromal stage of acute infection,
- thrombophlebitis or phlebothrombosis;
- hemorrhagic syndrome;

- acute infectious or chemical intoxication (e.g. food poisoning, salmonellosis, alcohol intoxication, etc.);

- allergic processes (pathophysical or pathochemical stage);

- premenstrual tension syndrome or pre-menopause conditions (especially in women with menstruation complications);

- expressed pain syndromes (colic) in gallstones, kidney stones, pancreatitis, sciatica, trigeminal neuralgia etc.;

- strong and long-term electromagnetic interference in the patient's workplace or place of sleep;

- chronic infectious processes occurring in several organs simultaneously and usually localized in the ENT organs or teeth.

It should be noted that the ID registration process requires the acquisition of certain skills to work with the "active" electrode-probe. To simplify the ID registration process, it is possible to use a special technique consisting of weakening the pressure force with the "active" electrode probe, without its breaking contact from the EAP until the indicator of the electrodiagnostic device reaches 0-20 cu.

After this, increasing the pressure force of the "active" electrode probe for BAP is repeated, finishing on the "measurement plateau" and then the TL BAP is established.

The method described above, which consists of successive strengthening and weakening of the pressure force of the "active" electrode probe to BAP, is repeated several times until the position of the electrodiagnostic device indicator is stable.

If there is no ID effect, then the TL value determined during the first, second and subsequent measurements does not change.

If there is an ID effect, then the TL value determined during the subsequent measurement of EP BAP is smaller than the first.

Use of this technical method significantly reduces electroacupunctural diagnosis time and is useful in cases where TL BAP is below 42 cu i.e. in the interval where the ID registration effect can take quite a long time (up to 30 seconds or more).

The third indicator used in the interpretation of diagnostic results is the asymmetry of TL of paired BAP, the difference between which constitutes more than 10-15 cu: this is considered as a sign of dysregulation of the function of the body or tissue system.

From the diagnostic point of view, registration of this indicator deserves most attention, especially in cases where the TL value of all BAP are within 75-50 cu. and there is no ID effect.

Along with this, an indirect conclusion that there is dysregulation of organ functions related to BAP may be obtained by evaluating the speed of the electrodiagnostic device indicator.

For example, a fast, abrupt rise of the indicator moving to the "measurement plateau" in 1 sec., indicates hyperfunction related to the BAP organ, and a slow drop moving to the "measurement plateau" in 5 sec. or more indicates hypofunction.

It should be noted however, that the clinical language terms used to describe the results of electroacupunctural diagnostics are generalized and essentially indicate the type of reactions to a pathogenic cause or damage (inflammation, tumors, allergies, autoallergy disorders of autoimmunity, damage to neurohumoral regulation, etc.) which could be designated using other terms used to describe the specific (pathological or morphofunctional) changes occurring in a particular organ or tissue system.

For example, measurement results of EP BAP vessel degeneration (disorganization) of the connective tissue can be interpreted as follows:

- mucoid swelling of connective tissue with superficial disorganization of the interstitial tissue and collagen apparatus: TL 100-82 cu, ID is absent or is in the interval 100-50 cu on the electrodiagnostic device scale;

- fibrinoid changes with advanced disorganization;

- of connective tissue, with formation of various granulomas: TL 100-42 cu, ID less than 50 cu;

- sclerotic changes in connective tissue with scarring at the location of fibrinoid changes, or granulomas, calcinomas etc.; ID below 50 cu.

## Contraindications to use of electroacupunctural therapy

Contraindications to the use of ET include:

- benign and malignant tumors;
- hereditary hemorrhagic anemia;
- bleeding disorders;
- purpura and other hemorrhagic conditions;
- pregnancy;
- acute infections and fever conditions of unknown origin;
- chronic infectious diseases in acute stages (tuberculosis, brucellosis, etc.);
- decompensated disease of the heart, lungs and other internal organs;
- pulmonary fibrosis with a tendency for bleeding;
- active rheumatism;
- myocardial infarction in the last two months;
- venous thrombosis and embolism in the acute period;
- sudden emaciation;
- congenital malformations of the central nervous system;
- the presence of implanted pacemakers in the patient;
- individual intolerance to electric current;

- injuries and diseases of the skin in the location of electrical stimulation;

- acute pain syndromes of unknown origin;
- condition of acute psychological stimulation or intoxication.

The device permits diagnostics and therapy on both corporal acupuncture points as well as auricular acupuncture points.

## **Safety measures**

## Do not connect the device to an AC adapter with a damaged power cord.

Do not attempt to repair the device yourself. If a fault occurs, please contact a service center.

## Storage

The device without packing must be kept indoors at temperatures between 10 to 35  $^{\circ}$ C and a relative humidity of not more than 80%.

To protect the device from damage, it is recommended that the adapter is disconnected from the device when not in use.

It is recommended that packing materials are retained during the warranty period.

## **Transportation**

Since the device has a high-precision liquid crystal indicator which is sensitive to external mechanical influences, during transportation it is recommended:

- to protect the device from the jolting and knocks;

- not to drop the device;

- not to drop other objects on the device.

The device must be protected from condensation and the effect of chemicals.

## **Certificate of acceptance**

"DETA-Professional" device, Serial No.\_\_\_\_\_

is produced and accepted in accordance with mandatory requirements of state standards and technical documentation in effect and established as fit for use.

Technical control mark

seal	

(signature)

(name)

201\_\_\_

(date of issue)



## **Manufacturer's warranty**

The manufacturer guarantees that medical device "DETA-Professional" conforms to the specifications during observation of rules of consumer use, transportation and storage.

The warranty period of the device is 12 months from the date of retail sale.

In the absence of the date of sale and stamp of the trading organization on the coupon for warranty repairs, the warranty period is calculated from the date of issue of the device from the manufacturer.

During the warranty period, the owner is entitled to free repairs on presentation of a warranty repair coupon.

Warranty repairs are performed on the territory of the manufacturer. Transportation of the faulty device is at the buyer's expense.

Without presentation of a warranty repair coupon and test certificate and/ or damage to the security seals of the device, no claims are admitted and repair is not performed under warranty.

The warranty does not apply to the following faults:

- · defects as a result of improper use;
- · defects caused by natural disasters;
- damage to the security seals;
- the presence of external defects (cracks, chips, etc.).

The purchaser has the right to have the faulty unit replaced for a new one in the following cases:

• the device was repaired three times during the warranty period;

• the device is beyond repair.

Warranty coupons are enclosed.

	<b>🔅</b>
(name, signature)	ELIS Research & Development Enterprise 124482 Russia, Moscow, Zelenograd, Savelkinskiy Proezd, 4, office 2408 Tel./Fax: +7(495) 981-91-60/62
	COUNTERFOIL No. 1 for warranty repairs to device "DETA-Professional" device Serial No
	Sale shop
	(name of trading organization)
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Idert	Owner's name and address
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	Works carried out to eliminate the fault:
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	(date) (signature) (signature)
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	Repair company
Withdrawn	Company seal 201
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(name, signature)	ELIS Research & Development Enterprise 124482 Russia, Moscow, Zelenograd, Savelkinskiy Proezd, 4, office 2408 Tel./Fax: +7(495) 981-91-60/62 COUNTERFOIL No. 2 for warranty repairs to device "DETA-Professional" device Serial No	
	Sale shop	
Repairs undertaken by _	Shop seal	
device "DETA-Professional" 201	Works carried out to eliminate the fault:	
	Repairs carried out by (date) (signature) Owner (signature) Repair company	
<b>COUNTERFOIL No. 2</b> for warranty repairs to Withdrawn	Company seal 201 Authorized individual (signature)	

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ure)	ELIS Research & Development Enterprise 124482 Russia, Moscow, Zelenograd, Savelkinskiy Proezd, 4, office 2408 Tel./Fax: +7(495) 981-91-60/62
(name, signature)	COUNTERFOIL No. 3 for warranty repairs to device "DETA-Professional" device Serial No
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	(name of trading organization)
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dert	<sup>(signature)</sup> Owner's name and address
Repairs undertaken by	Signature
201	Works carried out to eliminate the fault:
	Repairs carried out by
	(date) (signature) Owner
	(signature)
	Repair company
Withdrawn	Company seal 201
Withdrawn	Authorized individual
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	(name of trading organization)
Repairs undertaken by	Shop seal
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	(signature) Repair company
for warranty repairs to Withdrawn	Company seal 201

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for warranty repairs to Withdrawn	Company seal 201
for warranty Withdrawn	Authorized individual
for wa Witho	(signature)



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