

# Operating Manual





**RC ART LLC, Ekaterinburg, Russia**



# DiaDENS.PCM

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Thank you for purchasing of the device DiaDENS-PCM.

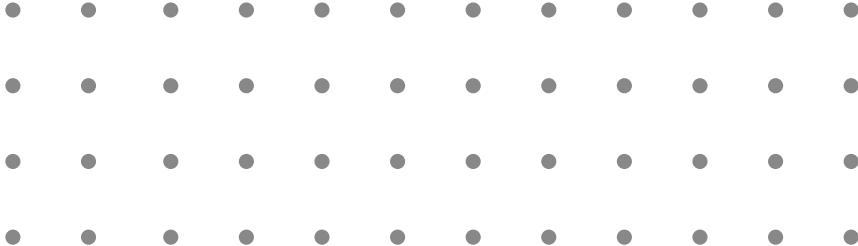
In order to make the usage of the unit effective and safe, please, carefully read all sections of this manual.



# PART 1

## Technical Passport

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## 1. SAFETY REGULATIONS

Information, contained in present operations manual, is important for your safety and proper use and maintenance of the device.



The device is safe for use, because it utilizes internal power source of low voltage, which is isolated from work part of the device (article of type B with body of type F).

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The device must not be used for treatment of patients with implanted electronic devices (for example, pacemakers) and for treatment of patients who have individual electric current intolerance.

Use of the device in direct front projection of heart is prohibited.

Don't treat patient with any high-frequency electric device during stimulation; simultaneous use of the device and other electric equipment can cause burns and lead to possible damage of the device.

Work near short-wave and microwave equipment can bring to instability of output parameters of the device.

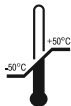
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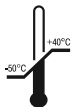
You must not connect to the device any other accessories, except remote electrodes, produced by manufacturing company.



The device contains fragile components. Protect it from shocks.  
The device is not waterproof. Protect it from ingress of moisture.



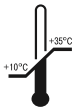
All works on maintenance and repair of the device must be executed by qualified specialists of the manufacturer.





**Transport conditions:** temperature from  $-50^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ , relative air humidity from 30 to 93%, atmospheric pressure from 70 to 106 kPa (525 to 795 mm Hg).

**Storage conditions:** temperature from  $-50^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , relative air humidity from 30 to 93%, atmospheric pressure from 70 to 106 kPa (525 to 795 mm Hg.).



**Operation conditions:** temperature from  $+10^{\circ}\text{C}$  to  $+35^{\circ}\text{C}$ , relative air humidity from 30 to 93%, atmospheric pressure from 70 to 106 kPa (525 to 795 mm Hg).

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**Attention!** *If the device has been stored at the temperature below 10°C, keep it in normal climate conditions for no less than 2 hours - before use.*



Utilization: All packaging materials are not environmentally harmful, they may be used repeatedly.



Separate collection of electrical and electronic equipment.

*The device contains valuable materials, which can be used repeatedly after utilization with consideration of requirements of environmental protection. They shall be delivered to specially intended for this purpose places (consult with corresponding services in your district) for collection and processing.*

## **2. PURPOSE**

Universal transcutaneous electrostimulator DiaDENS-PCM is intended for application of system-regulating impact on physiological systems of the body and for the treatment of functional disorders under wide range of diseases. Dynamic electroneurostimulation is executed through impulses of electric current on biologically active points and zones of the human body. The device provides possibility of selection of individual treatment program, as well as already prepared for use programs. The device has a built-in electrodes and a socket for connection of remote therapeutic electrodes \*.

The device DiaDENS-PCM is intended for use in hospitals and in home conditions in accordance with the instructions of a physician.



***Compliance with standards:*** This medical device is CE marked according to the Directive 93/42 /EEC on medical equipment.

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\* You can only connect to the device those remote electrodes, which are produced by the company-manufacturer (see Appendix 1).

### 3. SPECIFICATIONS

3.1. Electric impulse of the device have following output parameters:

3.1.1. Without load:

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— amplitude of 1st phase (V) < 40; —  
length of 1st phase (uS) -  $22 \pm 25\%$ ; —  
amplitude of 2nd phase (V) -  $72 \pm 25\%$ .

Comments: parameters of impulse do not change under adjustment of power and frequency.

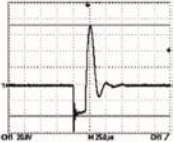

### 3.1.2. With load = 20 kOhm

Power (in nominal units)	Minimum	Maximum
	1	99
Amplitude of 1 <sup>st</sup> phase, V	$\leq 40$	$\leq 40$
Length of 1 <sup>st</sup> phase, uS	$6 \pm 25\%$	$530 \pm 25\%$

Amplitude of 2 <sup>nd</sup> phase, V	$9 \pm 25\%$	$300 \pm 25\%$
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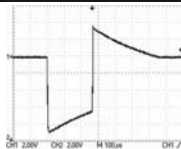
**3.1.3.** Dependence of impulse form from load resistance at average and maximum power levels.

Load resistance	Power level 50 units		Power level 99 units	
	Form of current	$V_{p-p}$	Form of current	$V_{p-p}$

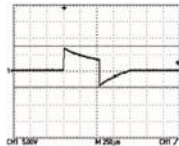
<p>Without load</p>	 <p>An oscilloscope trace on a grid. The signal is at a low level, then rises sharply to a peak, followed by a smaller peak and then settles to a steady state. The x-axis is labeled with '0V', '250µs', and '1ms'. The y-axis has horizontal grid lines.</p>	<p><math>\approx 110\text{ V} \pm 20\%</math></p>	 <p>An oscilloscope trace on a grid, identical to the one in the first column. The signal is at a low level, then rises sharply to a peak, followed by a smaller peak and then settles to a steady state. The x-axis is labeled with '0V', '250µs', and '1ms'. The y-axis has horizontal grid lines.</p>	<p><math>\approx 110\text{ V} \pm 20\%</math></p>
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200 Ohm

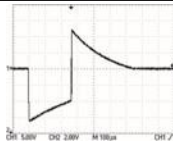


$\approx 12\text{ V} \pm 20\%$

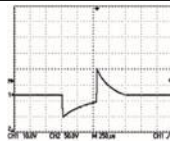


$\approx 12\text{ V} \pm 20\%$

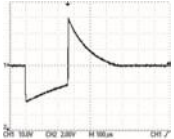
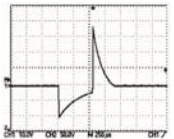
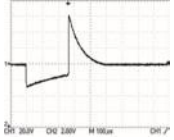
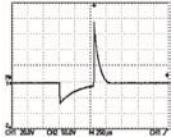
500 Ohm



$\approx 29 \text{ V} \pm 20\%$   
 $I_{\text{eff}} = 16 \text{ mA}$   
 $E_{\text{pulse}} \approx 110 \text{ uJ}$



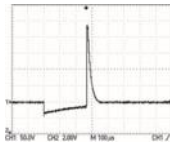
$\approx 30 \text{ V} \pm 20\%$   
 $I_{\text{eff}} = 17 \text{ mA}$   
 $E_{\text{pulse}} \approx 205 \text{ uJ}$

1 kOhm	 <p>The oscilloscope trace shows a voltage signal on a grid. The horizontal axis is labeled with 'CH1 100ns', 'CH2 200ns', 'H 100µs', and 'CH1 7'. The signal starts at a baseline, drops to a lower level, then rises sharply to a peak before settling back to the baseline.</p>	$\approx 52 \text{ V} \pm 20 \%$	 <p>The oscilloscope trace shows a voltage signal on a grid. The horizontal axis is labeled with 'CH1 100ns', 'CH2 200ns', 'H 250µs', and 'CH1 7'. The signal starts at a baseline, drops to a lower level, then rises sharply to a peak before settling back to the baseline.</p>	$\approx 60 \text{ V} \pm 20 \%$
2 kOhm	 <p>The oscilloscope trace shows a voltage signal on a grid. The horizontal axis is labeled with 'CH1 200ns', 'CH2 200ns', 'H 100µs', and 'CH1 7'. The signal starts at a baseline, drops to a lower level, then rises sharply to a peak before settling back to the baseline.</p>	$\approx 90 \text{ V} \pm 20 \%$	 <p>The oscilloscope trace shows a voltage signal on a grid. The horizontal axis is labeled with 'CH1 200ns', 'CH2 200ns', 'H 250µs', and 'CH1 7'. The signal starts at a baseline, drops to a lower level, then rises sharply to a peak before settling back to the baseline.</p>	$\approx 100 \text{ V} \pm 20 \%$

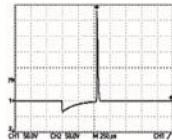
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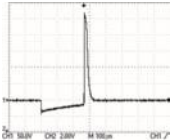
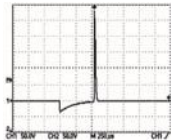
10 kOhm



$\approx 282 \text{ V} \pm 20 \%$



$\approx 300 \text{ V} \pm 20 \%$

20 kOhm		$\approx 310 \text{ V} \pm 20 \%$		$\approx 330 \text{ V} \pm 20 \%$
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**3.2.** The device provides possibility of setting of following frequencies of impulses, Hz:

**3.2.1.** Range 1:

—  $10 \pm 1$ , including modes «Express», MED (prophylaxis) and 14 «Screening»;

- $20\pm1$ ;  $60\pm2$ ;  $77\pm2$ ;  $77\pm2$  and  $10\pm1$ ,  $77\pm2$  and  $10\pm1$  modulated by frequency  $2\pm0,1$  (mode «77 10»);
- $77\pm2$  with modulation by amplitude (mode «77AM»);  $140\pm3$ ;  $200\pm3$ .

**3.2.2.** Range 2: from 1,0 to 9,9 with increment  $0,1\pm0,05$ .

**3.3.** Maximum current consumption (under supply voltage of 3 V - no more than 300 mA.

**3.4.** Electrical power supply: batteries of type LR6/AA, 2 pcs., with voltage  $1,5\pm0,45$  V. It is allowed to use corresponding accumulator batteries with nominal current of 1,2 V\*.

**3.5.** Mass of the device is no more than 0,35 kg.

**3.6.** Dimensions of the device are no more than 165x65x65 mm.

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*\* Operations procedure (types of battery rechargers, methods of recharge) are described in instructions manual for accumulator batteries. Running time of the device under use of accumulators depends on characteristics of accumulators.*

**3.7.** The device automatically switches off not later than in 10 min after the last touch of any of its buttons (except button ①) or after the last contact of the electrodes with patient' skin surface.

**3.8.** Electromagnetic emission



<b>Test</b>	<b>Compliance with IEC 60601-1-2</b>	<b>Terms of use</b>
RD radiation CISPR 11	Class B	Electrosimulator DiaDENS-PCM is suitable for use in all houses including residential use

### **3.9. Resistance to RF-radiation**

<b>Test</b>	<b>IEC 60601-1-2 test conditions</b>	<b>Acceptable level</b>
IEC 61000-4-6	3 Vrms from 150 kHz to 80 mHZ	3 Vrms

IEC 61000-4-3	3 V/m from 80 MHz to 2,5 GHz	3 V/m
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### 3.10. Resistance to electromagnetic fields

Test	Test level	Level of compliance	Terms of use
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Electrostatic discharge (ESD) IEC 61000-4-2	$\pm 6$ kV contact $\pm 8$ kV impact	$\pm 4$ kV contact $\pm 8$ kV impact	Floor should be made from wood, concrete, or ceramic tiles. If floor is covered with synthetic material, the relative humidity should be at least 40%.
Magnetic fields IEC 61000-4-8	3 A/m	3 A/m	Parameters of magnetic fields should be at levels, typical for commercial or hospital buildings

### 3.11. Recommendations on determination of required distance between electrostimulator

## DiaDENS-PCM and radio equipment

Rated maximum output power of Transmitter P (W)	Radiated frequency and formula for determination of distance d (m)		
	150 khz - 80 MHz d = 1,2VP	150 khz - 800 MHz d = 1,2VP	800 MHz - 2,5 HHZ d = 2,3VP
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3

100	12	12	23
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### **3.12. Terms of use**

**3.12.1.** Connection of remote electrodes, not allowed by manufacturer (including change of length of cable, type of cable, construction of electrode) can lead to increase of electromagnetic radiation level and/or decrease of device resistance to external impacts.

**3.12.2.** The device DiaDENS-PCM uses electromagnetic energy only for internal functions, and due to this fact, radiation of the device is minimal and shall not impact nearest electronic equipment. The device DiaDENS-PCM shall not be used alongside other equipment. If such

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action is deemed necessary, then DiaDENS-PCM and other equipment shall be checked for correctness of operation under joint use.

**3.12.3.** The device DiaDENS-PCM is intended for work in specific conditions of electromagnetic environment, and the customer (user) shall check if these conditions comply with required values.

*Electrostatic discharge (ESD).* Floor should be made from wood, concrete, or ceramic tiles. If floor is covered with synthetic material. Then relative air humidity shall be no less than 40%.

*RF-radiation.* Portable and mobile devices shall be used near any part of the device DiaDENS-PCM at the distance of no less than  $d = 2,3 \sqrt{P}$  (800 MHz + 2,5 HHZ), where P – is maximum output power according to manufacturer's information.

#### **3.12.4. Recommended user activities**

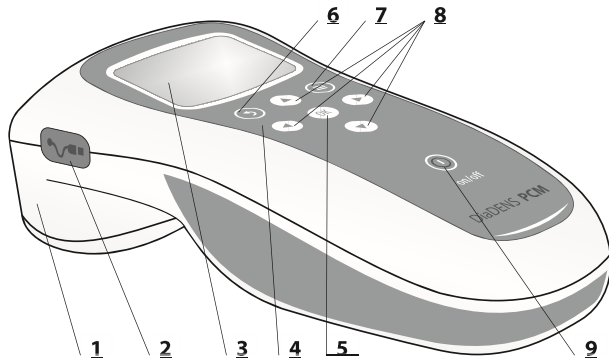
*Electrostatic discharge (ESD).* The user shall not use clothes, made of synthetic materials. *RF radiation.* The personnel (user) shall take following safety measures: minimal distance to portable means of communication (cellular phones, cordless phones) shall be approximately 3 meters, in case when output power of the devices exceeds 2 W.

## 4. COMPLETE SET






Item	Quantity
Electrostimulator DiaDENS-PCM	1
Operations manual	1
Consumer container	1
Battery	2

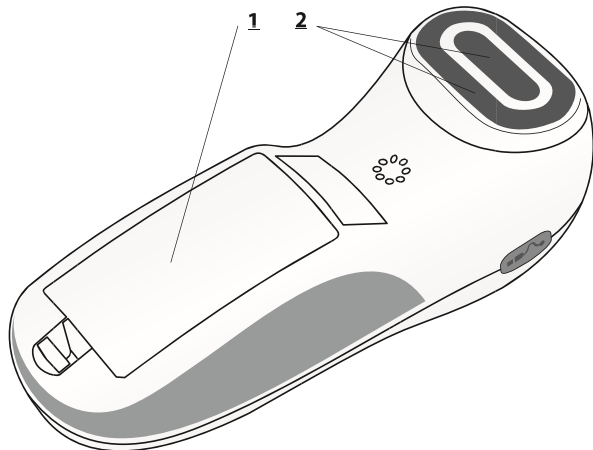


## 5. DEVICE ASSEMBLY



**Fig. 1. The device DiaDENS-PCM (top view)**

- 1.** Body.
- 2.** Socket for connection of remote electrodes (closed with cover).
- 3.** Display — liquid-crystal display.
- 4.** Keyboard.
- 5.** Button for selection of menu item .
- 6.** Button of return to previous menu item .
- 7.** Button of return to main menu .
- 8.** Buttons for navigation in device's menu .
- 9.** Button for switching the device on an off .



**Fig. 2. The device DiaDENS-PCM  
(bottom view)**

- 1.** Cover of battery cabinet.
- 2.** Built-in electrode.

You can connect to the device remote therapeutic electrodes of models, produced by company-manufacturer (see Appendix 1).



**Attention!** Remote therapeutic electrodes can be used only in modes «Express» or «Therapy».

To improve contact before use of remote electrode you can rub the skin in area of impact with sponge, wetted with water or apply small amount of cream «Malavtilin» (you can begin application after complete absorption of the cream).

## 5.1. Appearance of display in different modes

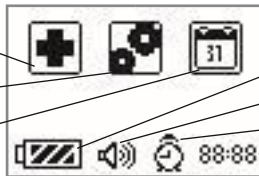
### 5.1.1. Symbols of main menu of the device

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Treatment

Settings

Day timer



Battery charge

Volume

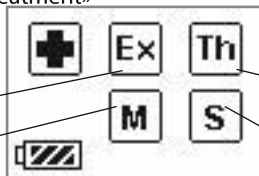
Timer

Current time

### 5.1.2. Symbols of menu «Treatment»

Regime «Express»

Regime MED



Regime «Therapy»

Regime «Screening»

### 5.1.3.Items of menu «Settings»



### 5.1.4.Items of menu «Day timer»



## **6. RECOMMENDATIONS ON USE OF THE DEVICE**

### **6.1. Switching the device on**



Press button ①. After the sound signal and logo, the device goes to statuses:

- main menu, if function «Storage of last used settings» has been switched off (p.8 of the table);
- to the mode, in which the device has been switched off, if function «Storage of last used settings» has been switched on.


### **6.2. Selection of mode or function**

Using navigation buttons, select required mode, function or value, press button ② to open them.

### **6.3.** Return to menu

To show the menu of above level, use button . To return to main menu of the device, press button .

### **6.4.** Switching the device off

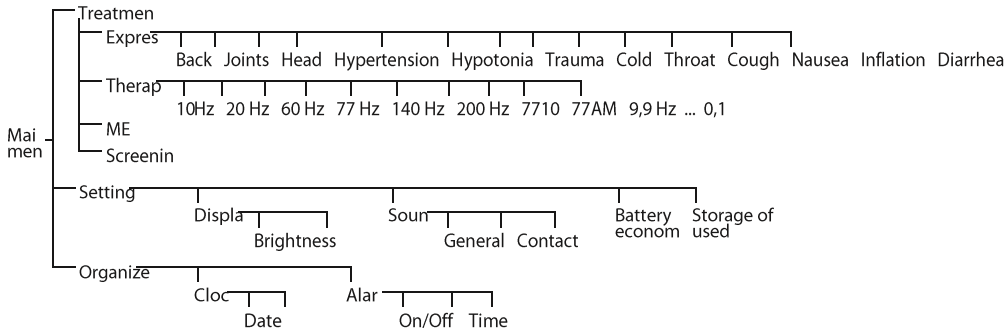
Press button , and hold it for approximately 3 seconds. The device will show you message «Good Health» and after sound signal and a message «Good bye», the device will switch off.

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## **7. USING THE MENU**

### **7.1. Structure of the menu**










## 7.2. Selection of menu item




### 1. Menu «Express»


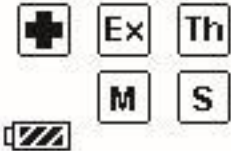
1.1


With the help of navigation buttons select in menu «Treatment» section «Express» and confirm your choice by pressing the button 








1.2	<p>In this section find required mode of operation/disease with buttons  and . Make a selection and press button </p>	
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1.3	<p>The device will start chosen mode of operation, meanwhile, power of the device will be set to minimal level. Readjust power with buttons  and .</p> <p>Methods of operation in mode «Express» are described in detail in «Usage instruction», part 2</p>	
<b>2. Menu «Therapy»</b>		


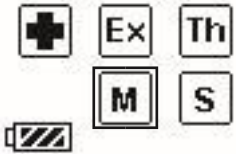
2.1	<p>With the help of navigation buttons select in menu «Treatment» section «Therapy» and confirm your choice by pressing the button </p>	
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2.2	<p>In this section find required frequency of impact with buttons ▲ and ▼, make a selection and press button OK</p>	 <p>The diagram shows a control panel with a rectangular display area. Inside the display, the text 'Th' is in a box on the left. To its right, four frequency values are listed vertically: '77 Hz', '140 Hz', '200 Hz', and '77 AM'. Above the list is an upward-pointing triangle and below is a downward-pointing triangle. To the left of the display is a button with a battery symbol (a rectangle with diagonal lines). Below the display is a button with the text 'OK' inside a circle.</p>
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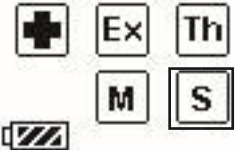
2.2.1	<p>In case of selection of infra-low frequency, the device will present you the menu of infra-low frequency adjustment. With the help of navigation buttons select required frequency (first integral part, then – decimal) and press button  to confirm your choice.</p>	
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2.3	<p>The device will start chosen mode of operation, meanwhile, power of electrostimulation of the device will be set to minimal level. Readjust power with buttons  and .</p> <p>Methods of operation in mode «Therapy» are described in detail in «Usage instruction », part 2</p>	
<b>3. Minimum effective dose (MED)</b>		













3.1	<p>With the help of navigation buttons select in menu «Treatment» section «MED» and confirm your choice by pressing the button</p> <p></p>	
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3.2	<p>The device will show mode MED, meanwhile, power of the device will be set to minimal level. Readjust power with buttons  and .</p> <p>Methods of operation in mode «MED» are described in detail in «Usage instruction», part 2</p>	 <p>The image shows a device's LCD screen. At the top left, a square icon contains the letter 'M'. To its right, the time '10:20' is displayed in large digits. Below the 'M' icon, the number '22' is shown above a battery level indicator consisting of four horizontal bars of varying lengths. To the right of the battery indicator, the text 'MED' is displayed. At the bottom of the screen, there are four icons: a speaker icon, a clock icon, and a vertical bar icon.</p>
<b>4. Diagnostics mode «Screening»</b>		




4.1	<p>With the help of navigation buttons select in menu «Treatment» section «Screening» and confirm your choice by pressing the button </p>	
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4.2	<p>The device will show mode «Screening», meanwhile, fixed power of electrostimulation will be set for the purpose of safety. Methods of operation in mode «Screening» are described in detail in «Usage instruction », part 2</p>	
<b>5. Menu «display settings»</b>		






5.1	<p>With the help of buttons  and , select in menu «Settings» item «display» and confirm your choice by pressing the button </p>	 <p><b>DISPLAY SOUND ECONOMY STORAGE</b></p> 
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5.2	<p>The device will show mode «Display settings»: adjustment of brightness and contrast. With the help of buttons  and  select one of adjustable parameters and confirm your choice by pressing the button </p>	 <b>DISPLAY</b> <b>BRIGHT.</b> <b>CONTRAST</b> 
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5.2.1	<p>Adjustment of display brightness: the device provided 5 levels of brightness of display, from minimal (1st level of brightness) to maximal (5th level of brightness), which can be selected by pressing buttons  and .</p> <p><b>Attention!</b> Increase of brightness leads to increase of current consumption and early replacement of batteries. Use of minimal level of brightness will allow to use batteries for a long time.</p>	 <p><b>BRIGHT.</b></p> <p><b>5</b></p>
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5.2.2	<p>Adjustment of display contrast: the device provided 5 levels of contrast of display, from minimal (1st level of contrast) to maximal (5<sup>th</sup> level of contrast), which can be selected by pressing buttons  and .</p>	
<b>6. Menu «sound settings»</b>		












6.1	<p>With the help of buttons  and  in Menu «Settings» select item «Sound» and confirm your choice by pressing button </p>	 <b>DISPLAY SOUND ECONOMY STORAGE</b> 
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6.2	<p>The device will show the menu «Sound settings»: general sound of the device, sound under contact with skin, sound under pushing keyboard buttons. With the help of buttons  and  select one of adjustable parameters and confirm your choice by pressing button </p>	 <b>SOUND</b>  <b>GENERAL CONTACT BUTTON</b>
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6.2.1	<p>For adjustment of general sound of the device, 3 sound levels are provided: mute, minimum and maximum, indicated by digits 0, 1 and 2 correspondingly. With the help of buttons  and  select one of sound levels and confirm your choice by pressing button .</p> <p><b>Attention!</b> Sound signals are generated with consideration of specified sound level. Under selected sound level "mute", sound signals will not be generated.</p>	 <p>The image shows a screen with the word "GENERAL" at the top. Below it is a large digit "0" with up and down arrows. To the left of the "0" are two icons: a speaker with a sound wave and a battery icon with diagonal lines.</p>
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6.2.2	<p>Setting of sound signal under contact with skin: contact of electrodes with skin can be confirmed by sound signal. With the help of buttons and   switch this function on or off and confirm your choice by pressing button </p>	 <p>The image shows a menu screen with the word "CONTACT" at the top. Below it are the options "ON" and "OFF", with an upward arrow pointing to "ON" and a downward arrow pointing to "OFF". To the left of the text are two icons: a hand holding an electrode at the top and a battery icon at the bottom.</p>
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6.2.3	<p>Menu navigation can be accompanied by sound signals. With the help of buttons  and  switch this function on or off and confirm your choice by pressing button </p>	
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7. Menu «Economy battery»		
7.1	With the help of buttons  and  in menu «Settings» select item «Economy» and confirm your choice by pressing button 	 <b>DISPLAY SOUND ECONOMY STORAGE</b> 




7.2

The device will show the menu «Economy Battery», which allows to change status of function «Economy Battery»: go to mode of reduced energy consumption at the expense of switching off highlighting (independent of selected brightness level) and decrease of time of automatic switching off if the device is not used to 1 minute. In addition, under switching on of function «Economy Battery», function «Storage of last used settings» is switched on automatically. With the help of buttons  and  switch this function on or off  and confirm your choice by pressing button



## 8. Menu «storage of last used settings»

8.1





With the help of buttons  and  in menu «Settings» select item «storage of last used settings» and confirm your choice by pressing button 



**DISPLAY  
SOUND  
ECONOMY  
STORAGE**








8.2	<p>The device will show the menu «storage of last used settings». This item allows to change status of function «storage of last used settings». If function is switched on, then the device will switch on in mode, in which it has been switched off. If the function is switched off, then the device will show main menu. With the help of buttons  and  switch this function on or off and confirm your choice by pressing button .</p>	
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## 9. Menu of setting of date and time






9.1








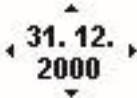
With the help of buttons  and  in Menu «Day timer» select item «Clock» and confirm your choice by pressing button 









**CLOCK  
ALARM**






9.2	<p>The device will show menu of adjustment of time and date. With the help of buttons  and  in menu select one of adjustable items and confirm your choice by pressing button </p>	 <b>CLOCK</b> <b>DATE</b> <b>TIME</b> 
-----	---	---

9.2.1	<p>Setting of date: the device allows to adjust current date, to do so, with the help of buttons  and  select digit, which you want to adjust, and press buttons  and  to change digits according to actual value and confirm your choice by pressing button </p>	 <b>DATE</b>  
-------	--	---

9.2.2	<p>Setting of time: the device allows to adjust current time, to do so, with the help of buttons  and  select digit, which you want to adjust, and press buttons  and  to change digits according to actual value and confirm your choice by pressing button </p>	
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## 10. Menu of alarm settings






10.1


With the help of buttons  and  in menu «Day timer» select item «Alarm» and confirm your choice by pressing button 









**CLOCK  
ALARM**





10.2	<p>The device will show menu of alarm settings: switching alarm on and off, adjustment of time of alarm, adjustment of alarm periodicity. With the help of buttons  and  in menu select one of adjustable items and confirm your choice by pressing button </p>	 <b>ALARM</b> <b>ON OFF</b> <b>TIME</b>  <b>REPEAT</b>
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10.2.1	<p>Switching alarm on and off: this item allows to change status of function «Alarm». If function is switched on, the device will emit sound signal at the time and in the period, specified by user. For termination of sound signal, it's necessary to switch on the device with button ⓘ. With the help of buttons ▲ and ▼ switch this function on or off and confirm your choice by pressing button Ⓚ</p>	
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10.2.2	<p>Setting of alarm time: for adjustment of time, with the help of buttons  and  select required area, and with buttons  and  change digits according to required value and confirm your choice by pressing button </p>	 <p>The image shows a digital display for setting an alarm. At the top left is a calendar icon with the number 31. To its right is the word 'ALARM' in bold. Below 'ALARM' is an upward-pointing arrow. In the center, the time '23:50' is displayed in large digits, flanked by left and right arrows. Below the time is a downward-pointing arrow. At the bottom left is a battery status icon showing a full charge.</p>
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10.2.3	Adjustment of alarm periodicity: with the help of buttons ▲ and ▼, select one of variants of periodicity — single, daily, weekly (1 time per week) and in working days. Confirm your choice by pressing button OK	 <b>ALARM</b> ▼ <b>Single</b> <b>Daily</b> <b>Weekly</b> <b>Work.days</b> 
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### 7.3. Menu of quick access

Some of settings of the device are available for user through menu of quick access. Symbols of this menu are situated in bottom row of the display and menu of stimulation modes («Express», «Therapy»). Selection one of such symbols with the help of buttons ◀, ▶ and confirmation of choice by button , shows to user menu of adjustment of one of these parameters. To exit these menus, press button  after confirmation of parameter, or button , to exit menu without storage of adjusted parameter.




**Menu «Timer»**

1.	<p>Function «Timer» is necessary in cases, when it is impossible to control time of impact (electrostimulation of hard-to-reach places) or when time of stimulation is clearly specified. After activation of this function, time of stimulation will be counted down. B In case when function is switched off, maximum time of one session - 30 minutes.</p> <p>With the help of navigation buttons, if you are in menu of stimulation modes («Therapy»), select symbol of menu «Timer» and confirm your choice by pressing button </p>	
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2	<p>The device will show menu item «Timer». With the buttons  and  set required time of timer – from 0 to 25 minutes (discreteness – 5 minutes). In case of setting 0 minutes, function is considered switched off and in modes of stimulation time will be counted in regular regime.</p>	
<b>Menu «Volume level»</b>		

1	<p>Menu «Volume level» provides possibility of quick access to setting of general sound level of the device.</p> <p>With the help of navigation buttons, if you are in menu of stimulation modes («Express», «Therapy», MED or «Screening»), select symbol of menu «Volume level» and confirm your choice by pressing button </p>	
---	--	---

2

The device will show menu of adjustment of general sound level - 3 sound levels are provided: mute, minimum and maximum, indicated by digits 0, 1 and 2 correspondingly. With the help of buttons  and  select one of sound levels and confirm your choice by pressing button .

**Attention!** Sound signals are generated with consideration of specified sound level. Under selected sound level «Mute», sound signals will not be generated.



Menu «Contact»		1 to device of remote
EN	<p>Menu «Contact» provides possibility of management of function «Forced therapy» — formation of electrical impulses independent of contact of electrodes with skin. Function «Forced therapy» is switched on automatically under connection</p> <p style="text-align: right;">OK</p>	<p>electrodes and can be switched on at will in case of need (for example, for brittle treatment of zone).</p> <p>⏏</p>
5	<p style="text-align: right;">▲</p> <p>▼</p>	<p>Th ON</p> <p>⏏</p>



With the help of navigation buttons, if you are in menu of stimulation modes («Express», «Therapy»), select symbol of menu «Contact» and confirm your choice by pressing button

The device will show menu «Contact». With the buttons and

2 switch this function on or off and confirm your choice by pressing button

illuminated constantly – function of forced therapy is

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switched off, remote electrodes are not connected;

flashes – forced therapy is switched on or remote electrodes are connected;

absence of contact of built-in electrodes with skin. Wet your skin slightly for contact.

## **8. TECHNICAL MAINTENANCE**

**8.1.** Daily technical maintenance should include the following: — external examination of the device; — disinfection of electrodes.

For purposes of disinfection use standard disinfection means (such as 3% solution of hydrogen peroxide) and soft napkins without nap to clean the electrodes.

**8.2.** Check of serviceability in accordance with instructions, specified in Part 6.

**8.3.** If you will not use the device for a long period, remove the power source from its compartment (fig. 2).

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**8.4.** If the battery symbol flashes on the display and there is a pulsing sound signal, change the battery (section 9).



**Attention!** *If power source is absent for more than 10 seconds, all individual settings of the user, set reminders, information on current date and time will be deleted.*

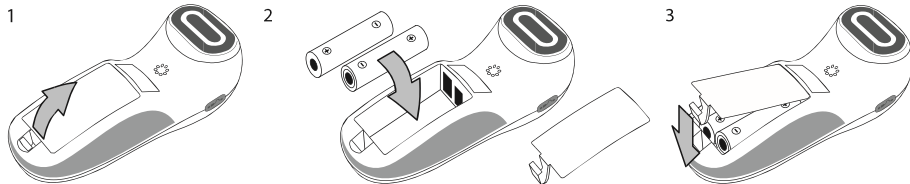
## 9. METHOD OF REPLACEMENT OF BATTERIES

Change of power source:

— open battery compartment (1) and take batteries from it;

— put new batteries into the device\*, with consideration of polarity (2); — close battery compartment (3).

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*\* Use only those batteries that are suitable for this device — type LR6/AA, voltage rating 1,5 V, or appropriate accumulators with nominal voltage 1,2 V.*

## 10. TROUBLESHOOTING LIST

Trouble	Possible reason	Method of elimination
1) The device does not switch on when you press button ⓘ	There are no batteries	Set new batteries (see section «Method of replacement of batteries»)
	Voltage of batteries is less than 2,1 V	Change batteries ( see section «Method of replacement of batteries»)

2) Under switching on, the device emits sound signals and switches off	Voltage of batteries is less than 2,1 V	Change batteries ( see section «Method of replacement of batteries»)	
	Period of time between switching on of the device and its subsequent switching on is less than 3 seconds	Wait 3 seconds after switching off the device and switch it on again	
3) The device does not pass to status		Mode of stimulation is not selected	Go to menu «Express» or «Therap select required mode of stimula



«Therapy» under contact of builtin electrodes with skin	Insufficient area of contact of electrode with skin	Tightly apply built-in electrode to necessary, slightly wet skin before
	Power level is zero	Increase power level
4) The device does not emit sound signals (under switching on of mode, change of power level, end of work and so on)	Sound is switched off	Increase volume. Go to section Set Sound → Volume

5) The device does not pass to status «Therapy» under use of remote electrodes	Mode of stimulation is not selected	Go to menu «Express» or «Therap select required mode of stimula
	Insufficient area of contact of electrode with skin	Tightly apply remote electrode to necessary, slightly wet skin before
	Power level is zero	Increase power level

6) Highlighting of indicator is not working	Function «Battery preservation» is switched on	Switch off function «Battery preservation» Go to section Settings → Battery preservation
7) The device does not shut down under absence of contact of	Remote electrode is connected to the device, the device is in the mode «Therapy»	Disconnect remote electrode, if you don't use it

electrode with skin or nonuse of buttons for more than 10 minutes	Function «Forced therapy» is switched on	Switch off function «Forced therapy»
8) The device switches off or symbol of battery flashes and the device emits discontinuous signal	Voltage of batteries is less than 2,1V	Change batteries ( see section «Method of replacement of batteries»)

9) The device does not switch on at the time, specified by the function «Alarm»	Active reminders are absent	Go to section «Alarm» and set reminders
	Voltage of batteries is less than 2,1 V	Change batteries ( see section «Method of replacement of batteries»)
10) The device switches off spontaneously	Voltage of batteries is less than 2,1 V	Change batteries ( see section «Method of replacement of batteries»)
11) «Quick consumption» of batteries	Off-grade batteries	Use high-quality batteries (alkaline atteries are recommended) or accumulators of corresponding unitsize with voltage of no more than 1,5 V

	Level of brightness is maximal	Decrease level of brightness. Go to section Settings → Display
	Function «Battery preservation» is switched off	Switch on function «Battery preservation». Go to section Settings → Battery preservation



**Attention!** *Other troubles must be eliminated by the manufacturer or at the service centers of the manufacturer.*

## **11. MANUFACTURER'S WARRANTY**

**11.1.** Operating time of the device — 5 years.

Under observance of operation regulations, actual operation time can significantly exceed official one.

**11.2.** Warranty period for the device — 24 months from the date of sale.

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**11.3.** The seller (manufacturer) or organization, which acts as a seller (manufacturer) on the basis of contract with it, is not responsible for the defaults should they occur after the disposal of the device as a result of:

- 1) failure on the part of the consumer to comply with the rules of transportation, storage, care and operation, provided by the present manual;



EN

2) mechanical damages; 3) actions of the third party; 4) force-majeure.

**11.4.** Guarantee obligations do not apply to products with broken manufacturer's seals.

**11.6.** In case of unit breakdown or malfunction within the warranty period, as well as in case of incomplete shipping is found, the owner must send the following documents to the manufacturer's address or manufacturers' representative: claim for repair (exchange) with name, address, telephone number; defects list with brief description of the malfunction, date and conditions of its appearance.

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***Address of company-manufacturer:***

LLC «RC ART»

Akademika Postovskogo Str. 15

Ekaterinburg, 620146, Russia Tel.: +7 (343) 267-23-30 e-mail:  
corp@denascorp.ru <http://www.denascorp.ru>

***Official Representative in the European Union:***

DENAS-CZ Ltd.

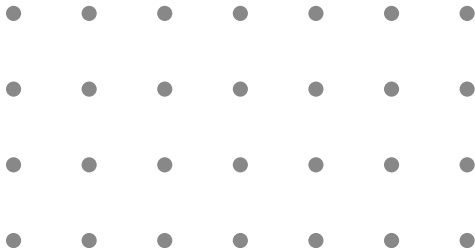
Na Vyhlede 886/3A, 360 17,  
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Tel./Fax:+420 353 549 285

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# PART 2

## Usage Instructions



## 1. GENERAL PROVISIONS

Application of impulse currents on reflex zones and points for prophylaxis, treatment and functional recovery is an independent method of treatment and can be applied both as a complex treatment and as a mono therapy.

Numerous examinations show that the therapeutic action of the dynamic electroneurostimulation (DENS) is based on multilevel reflex and neurochemical reactions triggering a cascade of regulatory and adaptive mechanisms of the body. It results in elimination of pain syndromes, improvement of blood circulation, anti-inflammatory actions, activation of biologically active substances and metabolic processes in tissues, normalization of the muscle and vascular tones. Dynamic electroneurostimulation promotes improvement of general condition, better mood and capacity for work.

## **2. INDICATIONS AND CONTRAINDICATIONS FOR USE**

The device DiaDENS-PCM can be applied to patients of any age from newborns to people advanced age.

### ***Indications:***

- acute and chronic pain syndromes;
- traumas;

- respiratory diseases, diseases of the digestive device, diseases of ENT, blood circulation system, musculoskeletal system, nervous system, endocrine and urogenital systems, eyes, skin;
- rehabilitation after diseases, surgical operations and traumas;
- increasing body adaptive capacities under impact of negative pathogens factors, intensive physical and mental work, physical and mental overexertion, syndrome of chronic fatigue difficulties with waking up in the morning and sleepiness during daytime, disorders of falling asleep in the evening and insomnia, increased petulance, under depressive states, sexual dysfunction, as well as for prophylaxis of colds.

EN

***Contraindications: Absolute:***

- individual intolerance to the electric current; —
- implanted cardiostimulator; *Relative\*:*
- epileptic seizures;

- neoplasms of any etiology and localization (in the terminal stage of an oncological process, electrostimulation may be carried out as palliative method (supportive therapy), including rapid relief of the pain syndrome, after consultation with a doctor;
- acute febrility of unclear etiology;
- vein thrombosis;
- condition of acute psychical excitement, alcoholic or drug intoxication.



**Attention!** *Do not apply the device in the zone of direct heart projection at the front!*

\* *In these cases it is recommended to use the electrostimulator only after consulting your attending doctor.*

### 3. CONDITIONS FOR TREATMENT

You do not need any special conditions for treatment with DENS. Treatment procedures can be carried out both individually and with help of an operator who will carry out treatment on those zones and points, which you cannot reach yourself.



Electrotherapy is taken in a comfortable sitting or lying position. After the treatment procedure, the patient should relax for 10-15 minutes.

EN

The present manual describes treatment plans with most some widespread disease states. More detailed information about DENS opportunities is provided in the Manual on Dynamic Electroneurostimulation, supplied with the devices DiaDENS-T and DiaDENS-DT\*.



**Attention!** *Treat the device electrodes with a standard disinfection means (such as 3% solution of hydrogen peroxide) after each procedure. The electrodes of the device should be kept dry.*

## 4. INTENSITY (POWER) OF ELECTROSTIMULATION


The level of energy treatment with impulse current is determined individually based on subjective sensations of the patient. Intensity of electrostimulation is conditionally divided into three levels.

The first *minimal level* - the patient does not have any subjective sensations or has subtle vibrations in area of impact under electrodes. This level is used when treatment shall not be intensive –


EN for children up to 7 years old and patients with diseases of cardiovascular system (hypertension, hypotension, a syndrome of vegetative-vascular dystonia). For patients who are experiencing frequent headaches, dizziness, treatment should also be carried out with minimal power.

Second, *comfortable level* — patient feels light pricking, vibration or light burning without pain. It is used under treatment of weak pain and aches of medium intensity. This is the most frequently used power level.

The third, *maximal level* – the patient feels expressed painful pricking or burning. Such intensity can be accompanied by involuntary contraction of muscles close to electrodes. It is used under expressed pain syndrome.

Under switching on, level of power is equal to zero. To increase power you should press and hold button . Meanwhile, the power will be increased subsequently - from 0 to 99 conditional units.

EN

To decrease power you should press and hold button . Meanwhile, the power will be decreased subsequently.



**Attention!** *Power of electrostimulation can be increased or reduced during the treatment course depending on the extent of the patient's sensitivity and as the pain syndrome reduces.*



**Attention!** *Control of power level is executed subjectively, considering sensations of patient. You shall not exceed pain threshold.*

EN



***Attention!*** For patients with hypertension, hypotension, a syndrome of vegetativevascular dystonia, as well as patients who have frequent headaches, dizziness, treatment should be carried out with minimal power level.

## 5. MODALITIES

Dynamic electroneurostimulation with DiaDENS-PCM device is applied using three methods: *stabile, labile and labile-stabile*.

EN

*Stable method of application* (fixed electrodes) is used for treating small zones and on places with mutated skin (rash, abscesses, burns, postoperative and post burn scars, edemas, large birthmarks and so on).

With *labile method of application*, the built-in electrodes are moved smoothly within the application zone without taking them off the skin at 0,5-2-3 cm/sec. Movements are rectilinear, spiral, circular and other depending on the size and shape of the zone treated and on uninjured skin.

*Labile-stabile method* is a combination of both variants of treatment when electrodes are moved on skin with fixation on some places (e.g. on the zone of maximal painfulness).

Average duration of one treatment procedure:

- for children of the first year of life — 5-10 minutes;
- for children of 1-3 years — 10-15 minutes;
- EN — for children of 3-5 years — 15-20 minutes;
- for children of 5-12 years — 20-25 minutes;
- for children of more than 12 years and adults — up to 40 minutes.

It is recommended to treat no more than three zones in one treatment procedure.

## 6. TREATMENT WITH THE DEVICE

Exposure in modes «Express» and «Therapy» is applied under localized pain syndromes, functional disorders, for emergency aid. The duration of the procedure in the therapy mode in the zone of direct projection of pain and functional disorder is defined by the following reactions of the patient:

- the complaint is fully removed;
- the patient feel considerable improvement of the state of health; — the patient has fallen asleep.

Power level of treatment in the THERAPY mode: from minimal to maximal. Methods of treatment of a skin zone: stabile, labile, labile-stabile.

### 6.1. Use of the device by universal methods

*MENU* → *Treatment* → «Express» → **Select program**

Select necessary symptom or disease to be treated from the list.

EN

Press the electrodes to skin on the selected zone of treatment (schemes of treatment in «Express» mode are given in Appendix 2. Set the power of treatment.



**Attention!** Control of power level is executed subjectively, considering sensations of patient. You shall not exceed pain threshold.

On switching on the device, power value is equal to zero. To increase power of treatment press and hold button ▲. The power will subsequently increase from 00 to 99 conditional units. To reduce power of treatment press and hold button ▼. The power will be decreased subsequently.

After setting of power of treatment, countdown of time of impact will start. The time is counted downward (indicating the time remaining until the end of stimulation of the zone). At the end of



stimulation of zone, alarm tells you when to rearrange the electrode to the next area of impact.

EN

Methods of treatment in «Express» mode are given in Appendix 2.

**6.2.** Individual selection of operation modes. In the «Therapy» mode the following frequencies are available:

**6.2.1.** Therapeutic frequency 200 Hz

*MENU* → *Treatment* → «*Therapy*» → **200 Hz**

200 Hz — is a super high frequency. It is applied in the zone of direct projection of the complaint. The effect is achieved during several first minutes and continues from several minutes up to one hour. To increase the duration of the effect after analgesia, the device treatment can be continued at low or high frequencies.

Indications: acute pains connected with diseases and affection of musculoskeletal system during the acute period and pathology of the peripheral nervous system.

**6.2.2.** Therapeutic frequencies 60, 77 and 140 Hz

*MENU* → *Treatment* → «*Therapy*» → **60 Hz**

*MENU* → *Treatment* → «*Therapy*» → **77 Hz**

*MENU* → *Treatment* → «*Therapy*» → **140 Hz**

60, 77 and 140 Hz — are high-frequency range. They are applied in the zone of direct projection of the complaint and segmental zones . The effect is achieved in 5-10 minutes after the start of the procedure and continues up to one hour and longer.

Indications: inflammatory and functional diseases of internal organs with moderate pain syndromes, blood circulation disorder.

### 6.2.3. Therapeutic frequencies 10, 20 Hz MENU →

EN

*Treatment* → «*Therapy*» → **10 Hz**

*MENU* → *Treatment* → «*Therapy*» → **20 Hz**

EN

10, 20 Hz — are low frequencies. They are applied in the zone of direct projection of the complaint, general zones and zones, which enhance system effect. The effect is achieved after 20-60 minutes and continues from several hours and longer.

Indications: diseases of internal organs, musculoskeletal system including traumas (subacute and remote periods), postoperative period.

### 6.2.4. Infra-low frequencies

*MENU* → *Treatment* → «*Therapy*» → **9,9Hz...1,0Hz** (increment - 0,1 Hz) Infra-low frequencies are selected by following chart:

Frequency, Hz	Pathology*
---------------	------------

1,2	Autoimmune diseases, tachycardia, weakness in knee joints
1,6	Arthritis-arthritis
1,7	Acne, abscess, hypotension, dermatitis, parodontosis, sympathicotonic action, furunculosis, eczema
2,2	Fatigue, pustular eczema
2,5	Sleepiness, vegetative disorders, hypermenorrhea, headache, connected with diseases of paranasal sinus, hemorrhages, contusion, traumas, menorrhagia, hysteromyoma, edemas, toxic and infection liver injuries, hepatitis, cirrhosis, parodontosis, sinusitis, injuries, eczema

\*Samohin A.V., Gotovski Y.V. *Electroacupuncture diagnostics by method of R. Foll* .- Moscow: Center of intellectual medical systems "IMEDIS", 2003.- 512 pages.

2,6	Viral syndrome, hemorrhoids, headaches under liver diseases, intestinal headaches, dermatitis, impotence
-----	--

2,8	Nephritis, nephrolithiasis, renal colic, renal sclerosis, uremia
2,9	Rhinitis, sinusitis
3,3	Arteriosclerosis, hypertension, otosclerosis, toxic and infection liver injuries (hepatitis, cirrhosis), nephrolithiasis, renal colic, renal sclerosis, uremia, nephritis, furunculosis, hypertension connected with atherosclerosis
3,5	Cholelithiasis, nephrolithiasis, renal colic, weakness in knee joints, menorrhagia
3,6	Inflammation, grizzle, petulance
3,8	Allergy, hemorrhoids, spasms of different genesis
3,9	Neuralgias, sleep disorders (phase of falling asleep)

4,0	Adiposogenital dystrophy (obesity), asthma, viral syndrome, hemorrhoids, hypermen-orrhea, endocrine headache, vertigo, hypophysial disorders, impotence, climax, menorrhagia, pancreatogenous disorders
-----	---

4,6	Parathyroid gland dysfunction (calcium balance affection)
4,9	Viral syndrome, menage headache, climax, menorrhagia, obesity, rigid neck, furunculosis, menologies
5,5	Vascular headache
5,8	Otogenic headache, depressions
5,9	Spastic paralysis
6,0	Hypertension, headaches connected with liver diseases, rigid neck, extrasystole, systolic hypertension, increase capacity for work
6,3	Headaches connected with cerebral angiospasm, neuroses, petulance, cerebral contusion
6,8	Myalgias, muscle cramps

7,5	Trifacial neuralgia
7,7	Spastic paralysis
8,0	Headache of intestinal genesis, asthma, allergic bronchitis



8,1	Diuretic action (including for balance of potassium and sodium, nephrolithiasis, renal colic, nephritis, cystitis (pyelocystitis))
8,5	Insomnia
8,6	Fractures, duodenal ulcer
9,2	Hypertension, otogenic headache, nephrogenic headache, podagra, diastolic hypertension, dermatitis, spastic paralysis, renal sclerosis, uremia, furunculosis, eczema (including combined with renal disorders), diabetes mellitus
9,3	Flaccid paralysis
9,4	Adnexitis, obstructive bronchitis, hypertension, gastrogenic headache, intestinal headache, urogenital headache, endocrine headache, duodenitis, impotence, edemas, paresthesias, pareses, prostatitis, angina pectoris, erythema nodosum,

	furunculosis, cystitis (pyelocystitis), eczema, parametritis, gastric ulcer, ulceronecrotic en- domyocarditis
9,5	Hypertension, headache of vascular genesis, climacteric hypertension, laryngitis, parodontosis

9,6	Arthritis-arthrosis, spondylitis deformans, depressions, spinal injuries, osteochondrosis
9,7	Arthritis-arthrosis, lumbosacral radiculitis, podagra, renal sclerosis, uremia, rheumatism
9,8	Toxic and infection liver injuries, hepatitis, cirrhosis

#### **6.2.5. Mode «77 10»**

*MENU* → *Treatment* → «*Therapy*» → **77 10**

7710 mode is intended for general sedative, calming effect Level of power - minimal or comfortable.  
Method of application - stabile.

#### **6.2.6. Mode «77 AM»**

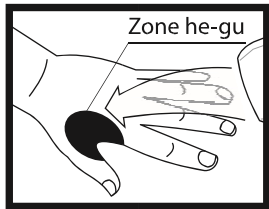
*MENU* → *Treatment* → «*Therapy*» → **77 AM**

EN

Mode 77 AM is intended for general restorative effect, better mood and capacity for work. Level of power - minimal or comfortable. Method of application - stabile.

**6.3.** Program of minimum effective dose (PROPHYLAXIS) *MENU* →  
*Treatment* → **MED**

The MED\* mode (PROPHYLAXIS) is applied in cases of expected intensive physical and mental work, physical and mental overexertion, syndrome of chronic fatigue, difficulties with waking up in the morning and sleepiness during the day-time, inability to concentrate one's attention, for prophylaxis of colds during epidemics. It is applied once during the treatment procedure. It is recommended to apply as course treatment: 8-12 procedures.



Fix electrodes of the device to the zone he-gu. Set power of treatment. Level of power to be applied - minimal or

---

\* MED — *m*inimum *e*ffective *d*ose

comfortable.



**Attention!** Control of power level is executed subjectively, considering sensations of patient under contact of electrodes with skin surface. You shall not exceed pain threshold.

Under detection of contact of electrodes of the device with skin surface countdown of period of minimum effective dose of device' impact will start.

Under switching on of the device, power value is equal to zero. To increase power you should press

EN

and hold button ▲. Meanwhile, the power will be increased subsequently - from 0 to 99 conditional units.

To decrease power you should press and hold button ▼. Meanwhile, the power will be decreased subsequently.



**Attention!** During the device operation in «MED» mode, electrodes on the patient's skin should be set in the «stable» position, i.e. they should not move.

After the end of the program, sound signal will be generated. In average, program works 6-7 minutes.

## 6.4. Mode «Screening »

EN

«SCREENING» mode allows: to select most optimal zones for impact to enhance system effect of DENS, to determine latent trigger zones (hidden problem zones) by estimation of the skin electrical resistance increase to nearby areas of the chosen zone. *MENU → Treatment → «Screening»*

Put the electrodes of the device to the chosen skin zone. Frequency (10 Hz) and power of impact are automatically set by the device.



**Attention!** During the device operation in "Screening" mode, electrodes on the patient's skin should be set in the "stabile" position, i.e. they should not move during operation in mode "Screening".

When the device detects the contact between the electrodes and skin surface, indication of period of time will appear – 5 seconds, during which skin electrical resistance is determined, after the

impulse is sent by the device. After 5 seconds interval the device will emit short sound signal and the display will show the measurement result as a ALT index (in range from 0 to 100 units), e.g., ALT = 8.

EN

Write down the readings. Set the device to the next zone.

The latent trigger zones are those zones where ALT values significantly differ – upwards or downwards. For example, under test of nearby areas you get following ALT results (in units): 6, 5, 8, 20, 4, 7. In this case the zone with the index ALT = 20 is considered to be latent trigger one.

Detected trigger zones should be additionally treated in “THERAPY” mode for 1-5 minute at 60 or 77 Hz frequency. Go to menu:

*MENU* → *Treatment* → «*Therapy*» → **60 Hz**

or



*MENU* → *Treatment* → «*Therapy*» → **77 Hz**

EN

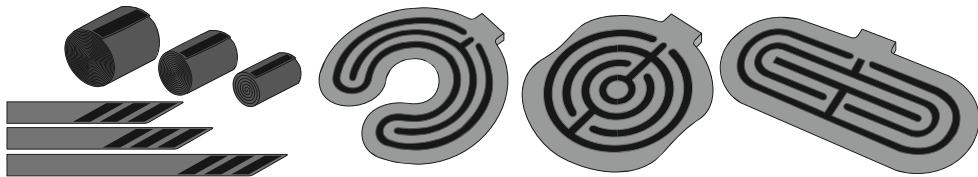
Put the electrodes of the device on the trigger zone and apply treatment.

# APPENDIX 1

## Accessories used

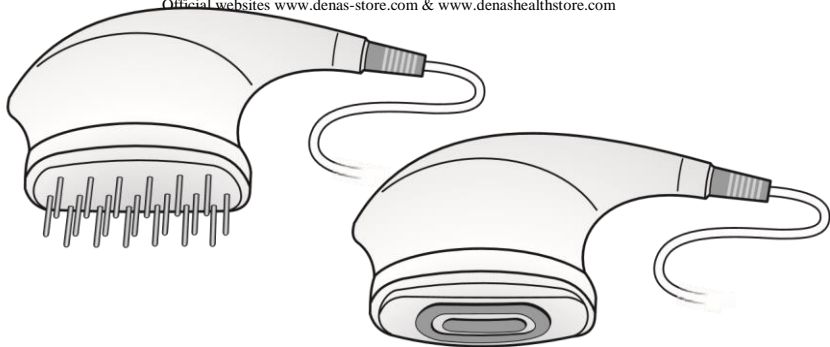
se ea a le alele es DENS-a l a .

EN



*Intended for non-invasive therapeutic effect on zone of pain, lesion centers, reflexogenic zones (without disruption of skin integument)*

EN



***Therapeutic remote massage electrodes.***

*Intended for treatment of zone of pain, lesion centers, reflexogenic zones and acupuncture points on the body*

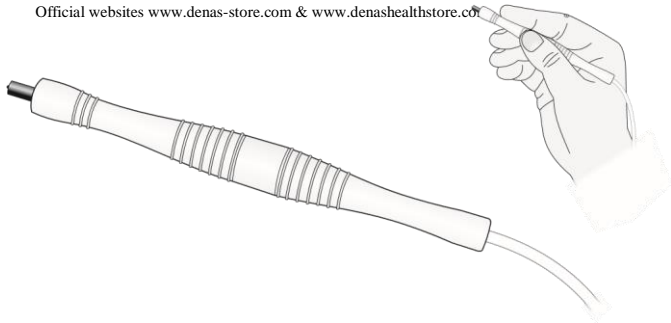
***DENS-glasses.***

EN



*Intended for prophylactic and therapeutic non-invasive impact on biologically active points, located around the eyes in paraorbital zone by method of dynamic electroneurostimulation **External therapeutic electrode.***

EN



*Intended for therapeutic impact on biologically active points by method of dynamic electroneurostimulation*





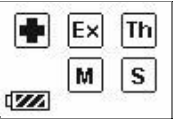
## APPENDIX 2 Scheme of «Express» menu





## USE OF ATLAS IN «EXPRESS» MENU

EN

№	<b>Order of work with atlas and the device in «Express» menu</b> Official websites <a href="http://www.denas-store.com">www.denas-store.com</a> & <a href="http://www.denashealthstore.com">www.denashealthstore.com</a>	<b>Symbols of the device menu</b>
		<div data-bbox="1580 311 1890 526">  </div>



3

Official websites [www.denas-store.com](http://www.denas-store.com) &  
[www.denashealthstore.com](http://www.denashealthstore.com)



## **ALPHABETICAL LIST**

Dizziness.....94



Acute respiratory diseases.....	100-102	Fractures.....	99
Angina.....	100-102	Headache.....	96
Arterial hypertension.....	97	Hypertension.....	97
Arthritis.....	95	Hypertensive disease.....	97
Back pain.....	94	Hypotension.....	98
Bloating.....	104	Joint injuries.....	95

Burns.....	99	Joint pain.....	95
Cold.....	100-102	Laryngitis.....	102
Constipation.....	106	Lumbodynia.....	94
Cough.....	102	Nausea.....	103
		Osteoarthritis.....	94,95

Delay of defecation.....	106
Diarrhea.....	295
Pain in the neck.....	94
Rhinitis.....	100
Sinusitis.....	100
Soft tissue concussions.....	99
Soft tissue injury.....	99
Sprain.....	95
Sciatica.....	94

Tonsillitis.....	101
Tracheitis.....	102
Watery feces.....	105
Wounds.....	99

Sore throat.....	101
------------------	-----




**Method of application****L** Labile\*

Stabile\*

**S** Labile-stabile\*

Stabile, with the help of applicator

**Device power level / Sensations of a patient**

-  Minimal / Lack of sensations
-  Comfortable / Pleasant pricking
-  Maximal / on the pain threshold

**Area of treatment** by built-in electrodes of the device.**Place of installation** of remote zonal electrode**154  
Notation Conventions**

Official websites [www.denas-store.com](http://www.denas-store.com) & [www.denashealthstore.com](http://www.denashealthstore.com)



## ZONE 1

LS



Under severe pain



Under dull pain

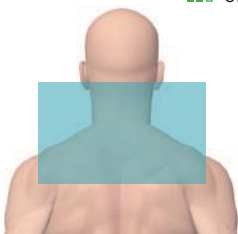
Official websites [www.denas-store.com](http://www.denas-store.com) & [www.denashealthstore.com](http://www.denashealthstore.com)

Treatment session takes: 5-15 mins

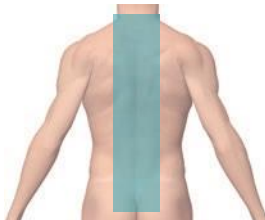
provide from 1 up to 6 sessions a day depending on severity.

Minimal break between sessions: 1.5 hours

Treatment course takes: 7-10 days.



**Pain in the neck (osteochondrosis, neck trauma)** — cervical spine



**Low-back pain** (osteochondrosis, discogenic radical colopathy, lumbodinia, sciatica, spinal injuries) — thoracic spine, lumbal, sacrum

156  
Program 1. **BACK**

Official websites [www.denas-store.com](http://www.denas-store.com) & [www.denashealthstore.com](http://www.denashealthstore.com)  
For most effective treatment use "diadens pcm operations instructions"

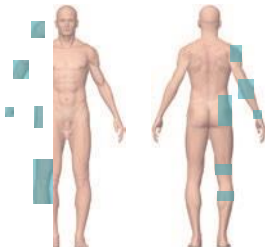
## Program 2. JOINTS

**Joint pain** (arthritis, arthrosis, joint injuries, sprains)

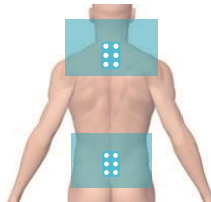
EN

### ZONE 1 S

Zone of diseased joint



### ZONE 2 LS:S



Zone of cervical-collar area — under disease of joints of hands  
Area of lumbosacral zone — under disease of joints of legs

Treatment session takes: 10-20 mins



Official websites [www.denas-store.com](http://www.denas-store.com) & [www.denashealthstore.com](http://www.denashealthstore.com)

Provide from 1 up to 6 sessions a day depending on severity. Minimal break between sessions: 1.5 hours Treatment course takes: 7-10 days.

EN

For most effective treatment use “diadens pcm operations instructions”

## Program 3. **HEAD**

Headache, dizziness

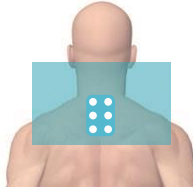
---

ZONE1 S ■



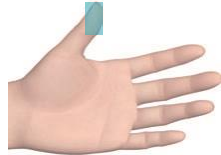
Zone of odontoid vertebra and i

ZONE2 LS'S' ■■■



Zone of nuchal translucency

ZONE3 S ■■■



Zone of compliance Su-Jock

Treatment session takes: 15-30 mins

Provide from 1 up to 6 sessions a day depending on severity. Minimal break between sessions: 1.5 hours Treatment course takes: 7-10 days.

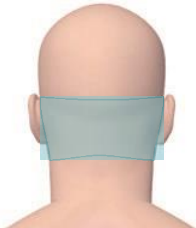
For most effective treatment use "diadens pcm operations instructions"

## Program 4. **HYPERTENSION**

Arterial hypertension, hypertensive disease, hypertension

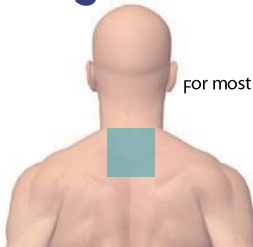
EN

ZONE 1 **S** ■ □ □



Zone of odontoid vertebra and inions

ZONE 2 **S** ■ □ □



Zone of seventh cervical vertebra

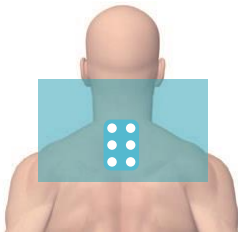
treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

for most effective treatment use "diadens pcm operations instructions"  
for most effective treatment use "diadens pcm operations instructions"

## Program 5. **HYPOTONIA**

EN

ZONE 1 **LS:S:** ■■■



Zone of nuchal translucency

Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

for most effective treatment use "diadens pcm operations instructions"

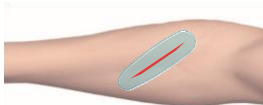
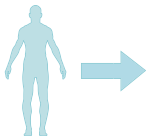
## Program 6. Trauma

Trauma, soft tissue injuries, wounds, burns, bone fractures

EN

**ZONE 1** **S**  Under severe pain

 Under dull pain



Treatment session takes: 5-15 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

Apply treatment around diseased zone, do not touch damaged skin

For most effective treatment use "diadens pcm operations instructions"

## Program 7. Cold

Acute respiratory diseases, rhinitis (cold), sinusitis, genyantritis

ZONE

S

1

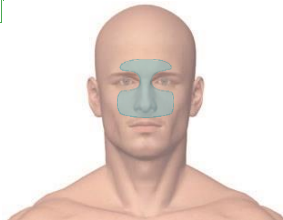


apliai

Official websites [www.deras-store.com](http://www.deras-store.com) [www.derashealthstore.com](http://www.derashealthstore.com)

ZONE 2

S



Provide from 1 up to 6 sessions a day depending on sev  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

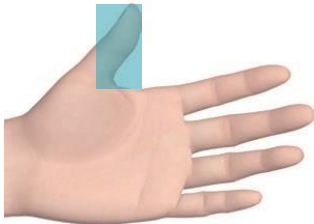
erity.

For most effective treatment use "diadens pcm operations instructions"

Sore throat, acute respiratory infections, angina, tonsillitis

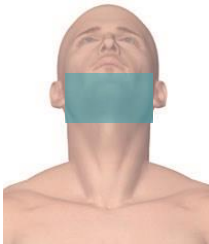
EN

ZONE 1 **S** 



Zone of compliance Su-Jock

ZONE 2 **S** 



Submaxillary zone

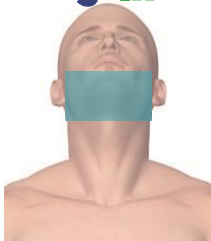
Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

Program 8. **THROAT**

For most effective treatment use "diadens pcm operations instructions"

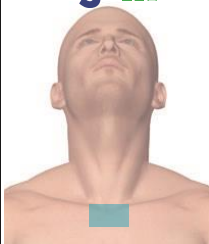
EN

ZONE 1 **S** ■■■



Submaxillary zone

ZONE 2 **S** ■■■



Zone of suprasternal notch

Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

## Program 9. Cough

Cough under inflammatory diseases of upper respiratory tract (laryngitis, tracheitis)



Official websites [www.denas-store.com](http://www.denas-store.com) & [www.denashealthstore.com](http://www.denashealthstore.com)

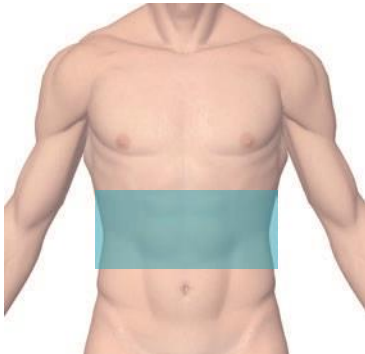
For most effective treatment use “diadens pcm operations instructions”

## Program 10. **NAUSEA**

Nausea, diseases of digestive system

**ZONE 1**

**S**



Zone of projection of stomach and stomach sweetbread

Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

For most effective treatment use  
"diadens pcm operations instructions"

EN

## Program 11. **BLOATING**

EN

Bloating under diseases of digestive system

**ZONE 1**

**S**



Zone of front belly wall. Shift in direction, specified by the arrow

Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

For most effective treatment use  
"diadens pcm operations instructions"

## Programm 12. **DIARRHEA**

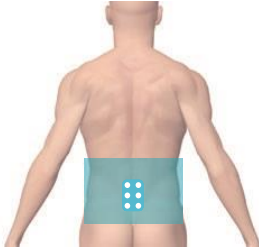
Watery feces (diarrhea) under diseases of digestive system

ZONE 1 **S** ■■■



Zone of front belly wall.  
Shift in direction, specified by the arrow

ZONE 2 **LS:S:** ■■■



Zone of lumbosacral area

Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

For most effective treatment use  
"diadens pcm operations instructions"

EN

## Program 13. **CONSTIPATION**

Stool retention, chronic constipations, postoperative intestinal paralysis

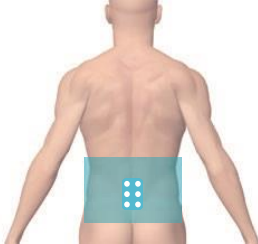
EN

ZONE 1



Zone of front belly wall.  
Shift in direction, specified by the arrow

ZONE 2



Zone of lumbosacral area

Treatment session takes: 10-20 mins  
provide from 1 up to 6 sessions a day depending on severity.  
Minimal break between sessions: 1.5 hours  
Treatment course takes: 7-10 days.

For most effective treatment use  
"diadens pcm operations instructions"



# ТАЛОН НА ГАРАНТИЙНЫЙ РЕМОНТ WARRANTY MAINTENANCE FORM GARANTIEREPARATURSCHEIN

EN

Наименование / Name / Bezeichnung: ДиаДЭНС-ПКМ / DiaDENS-PCM / DiaDENS-PCM

Серийный номер изделия / Serial number of device / Seriennummer des Produktes \_\_\_\_\_

Дата изготовления / Manufacturing date/ Herstellungsdatum \_\_\_\_\_

Дата покупки / Date of purchase /

Kaufdatum \_\_\_\_\_ Владелец / Owner / Eigentümer

Адрес / Address /

Adresse: \_\_\_\_\_

Телефон / Telephone / Telefon \_\_\_\_\_ домашний/home/privat

\_\_\_\_\_ рабочий/work/Geschäftlich

Дата отправки в ремонт / Date device sent for maintenance / Versanddatum im  
Garantiefall \_\_\_\_\_ Причина отправки в ремонт / Please explain the reason why device was sent  
for maintenance / Grund für die Einsendung zur  
EN Reparatur \_\_\_\_\_

Отметка о ремонте / Note of completed maintenance / Reparaturvermerk \_\_\_\_\_

Подпись должностного лица предприятия, ответственного за приемку после ремонта / Signature  
of the authorized person in the company responsible for acceptance after maintenance / Unterschrift  
des firmeneigenen Prüfers nach der Reparatur \_\_\_\_\_

Изделие проверено, претензий к комплектации, внешнему виду не имею. / The device was tested; I have no claims  
as to the completeness of the device in accordance with scope of delivery and the appearance of the device. / Das  
Produkt wurde überprüft, ich habe keinerlei Beanstandungen hinsichtlich der Vollständigkeit des Sets und des  
äußeren Zustandes.

Подпись покупателя / Signature of the buyer / Unterschrift des Käufers \_\_\_\_\_

Дата получения / Date received / Empfangsdatum \_\_\_\_\_

*Гарантия на отремонтированное изделие составляет 12 месяцев с момента получения изделия из ремонта. Если гарантийный срок с момента  
приобретения изделия составляет более 12 месяцев, то гарантия исчисляется по большему сроку. Также гарантийный срок увеличивается на время  
нахождения изделия в ремонте. / The warranty period for the device after maintenance is 12 months of the date the device was received from the service centre. If the*

Official websites [www.denas-store.com](http://www.denas-store.com) & [www.denashealthstore.com](http://www.denashealthstore.com)

*warranty period is more than 12 months of the date of purchase of the device, the warranty period shall be calculated based on a longer period. The period of maintenance of the device at the maintenance centre is also added to the warranty period. / Garantiezeit für die reparierte Ware beträgt 12 Monate ab dem Empfangsdatum der Ware von der Reparatur.*

*Im Falle einer Garantiezeit, die mehr als 12 Monate beträgt, so geht man von der längere Garantiezeit aus. Garantiezeit verlängert sich grundsätzlich um die Reparaturzeit.*





## **СВИДЕТЕЛЬСТВО О ПРИЕМКЕ / ACCEPTANCE CERTIFICATE /ABNAHMEBESCHEINIGUNG**

EN

Электростимулятор чрескожный универсальный ДиаДЭНС-ПКМ признан годным для эксплуатации. / The DiaDENS-PCM transcutaneous universal electrostimulation unit has been found serviceable. / Der Elektrostimulator wird für betriebstauglich befunden.

Отметка о приемке:

Acceptance note:

Abnahmevermerk:

Дата продажи / Date of sale / Verkaufsdatum: \_\_\_\_\_

Подпись продавца / Signature of the seller / Unterschrift des Verkäufers: \_\_\_\_\_

С условиями гарантии ознакомлен, изделие проверено, претензий к комплектации, внешнему виду не имею. / I am aware of the warranty terms and conditions; the device was tested; I have no claims as to the completeness of the device in accordance with scope of delivery and the appearance of the device. / Über die Garantiebedingungen bin ich in Kenntnis gesetzt worden. Das Gerät wurde überprüft und ich habe keinerlei Beanstandungen hinsichtlich der Vollständigkeit des Sets und seines äußeren Zustandes.

Подпись покупателя / Signature of the buyer / Unterschrift des Käufers \_\_\_\_\_

*Внимательно осматривайте аппарат при покупке! Дефекты корпуса или дисплея (царапины, трещины, сколы) не являются гарантийными случаями. Аппараты с такими дефектами обмену, ремонту или возврату по гарантии не подлежат. / Please carefully inspect the unit at the time of purchase! Defects of the body or the screen (scratches, cracks, splits) are not covered by the warranty. Devices with such defects shall not be exchanged, accepted for maintenance or returned. / Bitte untersuchen Sie das Gerät beim Kauf genau! Schäden an Gehäuse oder Display (Kratzer, Risse, Brüche) stellen keine Garantiefälle dar. Für Geräte mit derartigen Schäden besteht keinerlei Garantieanspruch auf Umtausch, Reparatur oder Rückgabe.*