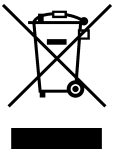
ULTICARE type LT-99

Apparatus for personal treatment and rehabilitation by means of a low-frequency pulsed magnetic field

Rev. 10 – 7. 2. 2022

CE 1014



Manufactured by

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What is magnetotherapy?

In the past, people knew the static magnetic field healing effect and used the magnetism of certain rocks (e.g. loadstone) and later of artificial, permanent magnets. Electronic devices that produce a low-frequency pulsed magnetic field with a strong healing effect have been designed more recently. This low-frequency magnetic field is completely harmless for humans as well as for animals; it shows a positive effect on all living organisms.

The pulsed magnetic field favourably influences the biochemical and biophysical reactions in the cells and between the cells in a living body, it improves the penetration of a cell membrane that may be out of balance due to illness. As a result of this process, the cells are better supplied with oxygen and other helpful materials and the metabolic process improves. The effect on the cells is noted by the central nervous system, which starts self-healing processes in the body through the activation of the body's immune system.

From the above-mentioned facts, it is obvious that magneto-therapy is suitable as an additional method to regular treatments and is more and more frequently gaining a reputation in balneology and rehabilitation.

ULTICARE – LT 99 generates a specific pulsed magnetic field that directly supports the regular treatment in patients and affects their physical and psychological well-being favourably.

The product can be used for the treatment of the diseases listed in the annex, as well as for preventing them and for strengthening the immune system and improving the body metabolism.

Major beneficial effects of the product:

- Induces widening of the blood vessels (vasodilation) – better blood supply to the tissues
- Has anti-inflammatory effects (on both sterile and microbial inflammations)
- Acts as a painkiller (analgesic effects)
- Relieves muscle tension (myorelaxing effect)
- Speeds up healing processes
- Suppresses swelling
- Reinforces and stabilizes bone tissue
- Improves cell and tissue metabolism
- Strengthens and promotes the immune system
- As a result of all these effects, it reduces the use of drugs, speeds up the recovery process and reduces or eliminates symptoms in patients with chronic diseases

Clinically tested and proven effects for the following conditions:

- Fractures
- Oedema and inflammations
- Bruises and burns
- Post-injury condition
- Back pain
- Peripheral nerve injuries
- Metabolic disorders
- Headaches (migraines)
- Fibromyalgia
- Rheumatic diseases (arthritis, ankylosing spondylitis, arthrosis, spondyloarthrosis, gout etc.)
- Spondylosis
- Osteoporosis
- Tennis elbow, frozen arm
- Parodontosis, periostitis
- Chronic prostatitis

⚠ When should magnetotherapy be avoided?

Magnetotherapy should be avoided during pregnancy, although no clinical studies have given evidence of any unwanted effects of this treatment. This is just a precautionary measure.

In no case should the product be used by patients with any electronic implants (such as pacemakers or insulin pumps). The effects might be fatal.

Bleeding of any kind is also a condition in which magnetotherapy is not recommended because magnetic field slightly suppresses blood coagulation and promotes blood supply to the tissues, whereby bleeding is supported. Magnetotherapy is contraindicated in patients with bleeding into the digestive tract.

The use of the device should be stopped two days before, during, and two days after menstruation, although a pulsed magnetic field may help reduce menstrual pain if applied outside this time period.

Magnetotherapy is not recommended for patients with acute viral diseases, heavy fungous diseases, neurological seizures or severe atherosclerosis.

Do not use magnetotherapy in patients with adrenal hyperfunction, thyroid hyperfunction, active tuberculosis, venous thrombosis or embolism, hypothalamus or hypophysis disorders. All the above information is given as a precautionary measure.

Also as a precaution, avoid using the product to treat persons with existing or past malignant tumors, even if treated and supposedly eliminated.

Based on current knowledge, magnetotherapy does not have any side effects if the recommendations given here are followed.

In extremely sensitive individuals, use of the system can induce an appreciable temporary blood pressure drop, this response, however, usually vanishes after the first five applications.

How should the device be used and for how long?

There is no specific training needed for operating of the device. Device can be operated by person above 15 years, who is able to understand to this manual. Slightly impaired sight, hearing and mind of user doesn't matter, but ability of desired operation of device is required.

The use of this system in patients with various diseases or disorders is described in the annex, which is provided to the user along with this manual.

The use of the system several times a day is absolutely safe, nevertheless, the total daily exposure should not exceed one hour.

Components of the LT-99 unit

1. LT-99 Generator
2. FW7555 Medical plug-in adapter
3. Applicators (optional)
4. Magnetic field indicator
5. Storage bag

Applicators (applied parts) A1C-LT, A4C-LT, ASE-LT. B1C-LT are supplied according to the customer's requirements.

Technical data

- Type designation: LT-99
- Classification: ⧈ - Class II, 🚶 - Type BF applied part
- Power supply:
  FW7555M/12 medical plug-in adapter (100-240V/12V=)
- Generator standby supply current: maximum 50 mA
- Maximum power consumption of the generator: 25 VA
- Magnetic induction: 2 to 8 mT (depending on the type of applicator used)
- Generated frequency: 1.3 to 72.7 Hz (according to the programme chosen)
- Operating temperature range: 0 to +35°C
- Storage temperature range: -20 to +70°C

Operating modes of the device

The unit can be operated in three different modes, determined by the programme selected: ***P1***, ***P2*** or ***P3***.

In the ***P1*** programme mode the unit generates a pulsed magnetic field with a pulse frequency varying between 3.3 and 40.7 Hz. This mode is indicated by the symbol W (***Wobbling-sWeeping***) in the upper left segment of the display.

In the ***P2*** programme mode the unit generates a pulsed magnetic field at a random pulse frequency within the range of 1.3 to 72.7 Hz. This mode is indicated by the symbol R (***Random***) in the upper left segment of the display.

In the ***P3*** programme mode the unit generates a pulsed magnetic field at a single (preset) pulse frequency. The default frequency (preset by the manufacturer) is 12 Hz. This default frequency can vary from 2 Hz to 72 Hz during operation of the unit. This mode is indicated by the symbol S (***Single frequency***) in the upper left segment of the display. The ***P3*** mode offers the option to change the selected frequency by ± 2.5 Hz. This can be achieved by simultaneous activation of the symbols S and W by a procedure which will be described later.

In each of the modes, NTS modulation is activated by default. This is indicated by the symbol M (***Modulation***) in the upper left segment of the display. NTS is a patented technology that eliminates the body's tendency to become accustomed to the pulsed magnetic field and thus to benefit from the effects of the device to a lesser and lesser extent. The NTS function is very important for stimulation of the immune system, where the pulsed magnetic field is to be applied for a long time. NTS modulation can be disabled and enabled by a procedure that will be described later.

The 🔔 symbol in the upper right segment of the display indicates that each five-minute period of running the unit is signalled acoustically; a signal also announces the end of the application. This function can be disabled and enabled in each of the modes described.

The ♫ symbol (musical note) in the upper right segment of the display indicates that a system sound is allowed.

The default setting (preset by the manufacturer) includes the full power of the unit and a 20-minute application period. The levels, though, can be modified in each of the programmes.

How to set up and control the unit

The plug-in adapter may only be used in dry, indoor areas. Connect the power adapter to the LT-99 generator so that you plug the adapter lead connector into the socket on the upper side of the generator, then plug the adapter into the mains socket. If all the parts are connected correctly and the mains voltage is correct, the LCD display of the device switches on, indicating the initial idle state. Now connect the chosen applicator to the generator by plugging the connector into the generator's bottom socket. Correct connection between the applicator and generator is indicated by the ***Ready****/Running* LED, which switches on, and the symbol ▂, which indicates that the applicator is connected, appears in the bottom left corner. The display shows *PROG* and the letter *P* followed by the programme number. If you want another programme, select it by pressing the double-button with the arrows either at ▲ or ▼. You start the selected programme by pressing the ∿ button briefly. During the operation of the device, the time (*TIME*) remaining until the end of the application is shown on the display in minutes (*min*). The wave above the applicator symbol ▂ in the bottom left corner of the display and the yellow *Ready/****Running*** LED flashing indicate that the instrument is generating a pulsed magnetic field through the applicator. The presence of the magnetic field can be tested by using the magnetic indicator supplied with the unit by holding it vertically above the applicator surface. If you feel distinct vibrations, the device is working correctly.

The end of application is indicated by three beeps (of course, if this function has not been switched off – see further instructions) and

the display shows ***EA (End of Application)***. The instrument is restored to the initial idle state by pressing any button briefly.

The default pulse repetition frequency in the ***P3*** programme mode is 12 Hz. This frequency, however, can be changed smoothly by the user while the unit is running. To do so, briefly press the double push-button on the side of the ▲ or ▼ symbol. The display will show the text *FREQ* and the current frequency in *Hz*. Now, either press this button briefly in a sequence or press and hold it in order to initiate a stepless frequency change. Release the button after attaining the desired frequency. In two seconds, the time remaining until the end of the application will be displayed again.

Whenever you wish to suspend the application, press the ∿ button briefly. Use the same button to resume the application. The idle suspension state differs from the initial standby state (which is the state in which the unit occurs either on connecting the unit to power or after reaching the end of application) in that the ***P*** programme indication is completed with the word *PAUSE* in the bottom segment of the display and the green control on the unit control panel is flashing. The programme number can be changed in this idle state. However, be aware that this new programme will be set to the standard time of 20 minutes again (or to the time preset by you).

After the unit has been idle for more than 10 minutes, the LCD display illumination and the display itself will switch off automatically. Pressing any button will illuminate it again and the previous status will be displayed.

If you hear a triple acoustic signal when pressing the ▲▼ double push-button, you are informed that no function can be set with that double push-button in the current condition or with the current setting of the unit.

The unit is equipped with an electronic memory owing to which the programme that was run last before switching off the unit will be automatically set on starting the unit again.

User-defined setup

The following parameters can be controlled in the three programme modes, ***P1***, ***P2*** and ***P3***: NTS modulation enabled/disabled, sound enabled/disabled, intensity and application time setting. Frequency sweep can also be enabled in the ***P3*** programme mode.

Select the programme in the standby state. Now, press and hold the ∿ button and briefly press the double push-button at ▲. In this manner, the programme setup mode is activated. The display will show the word *SETUP* and a flashing parameter which can be changed using the ▲ or ▼ button. Press the ∿ button briefly to pass to the next parameter.

For instance, if the Ⓜ symbol is flashing, this parameter can be set to ***0*** (modulation disabled) or ***1*** (modulation enabled) using the ▲ or ▼ button. Press ∿ briefly to pass to the next parameter.

If the 🔔 symbol is flashing, apply the same procedure to set this parameter to ***0*** (sound disabled) or ***1*** (sound enabled).

In the next step, the intensity of the magnetic field can be adjusted to 20%, 40%, 60%, 80% or 100% by setting the *INTEN* parameter to ***0.2***, ***0.4***, ***0.6***, ***0.8*** or ***1.0***. The intensity set is indicated by the number of curves (1 to 5) displayed in the bottom left corner of the display.

Set the *TIME* parameter (in minutes) to select the time of application (exposure) within the range of 5 to 60 minutes at 5-minute measures.

In addition, a pulse frequency sweep of 5 Hz (± 2.5Hz from the frequency set) can be selected in the ***P3*** programme mode. Set the Ⓦ parameter to ***0*** to disable the sweep or to ***1*** to enable the sweep.

The setup mode can be exited at any time by pressing and holding the ∿ button and subsequently pressing the double push-button at ▲ briefly. The unit passes to idle mode with the setup accepted.

The unit can be switched to the single-programme mode where the functions of the ▲ ▼ double push-button are disabled and only the button serves to control the unit. First select the desired programme and then press and hold the button until an acoustic signal is heard (about 10 seconds) and the symbol (crossed arrow) appears above the programme number in the upper part of the display. This symbol indicates that only the selected programme can be run. To switch back, return to the idle state, and hold the button down until the symbol disappears.

To disable any sound, bring up the symbol (crossed-out musical note) in the upper right corner of the display. To achieve this (in the idle state of the unit), press and hold the button and then briefly press the double push-button at ▼. Apply the same procedure to enable the sound again.

The complete setup of the unit remains stored in the system memory even after unplugging the unit/adapter. Thus, the setup procedure need not be repeated after switching the unit on again.

The unit should be delivered to the user in the default setup state defined by the manufacturer. To reset the unit to the default setup, unplug the unit, press and hold simultaneously buttons and ▼ and subsequently connect the unit to power via the adapter. After releasing buttons the system will be in the default state.

Error signals and messages

If the green control light on the universal power supply adapter stops shining, the unit is overloaded. In this case, unplug the adapter immediately.

The ***AF*** (***A****pplicator* ***F****ault*) message on the display in combination with the word *FAILURE* indicates a short circuit in the applicator.

OF (***O****utput* ***F****ault*) is a message that can appear if a fault occurs in the generator electronics output or if the unit is exposed to extremely intense external interferences. In this case, unplug the unit immediately.

Product properties and handling

The applicators A1C, A4C a ASE act on the treated body parts through clothing, do not apply them to bare skin. If application to the clothing is impossible for any reason, put a piece of cloth on the site to be treated.

The applicators B1C (torus) are made of ABS copolymer, which meets the requirements for contact with the patient's skin.

No hazardous substances are contained in the product or used by the product during operation.

The apparatus is declared by the manufacturer as an active non-invasive medical device Class IIa.

When the service life has expired or the product is no longer usable, it should be handled as electric waste, i.e. either returned to the manufacturer/dealer for disposal free of charge or collected as special waste in compliance with applicable legislation.

WARNINGS:

⚠ The socket to which the mains adapter is connected must always be accessible so that the appliance can be disconnected from the mains at any time.

⚠ The appliance is disconnected from the mains by pulling the plug of the mains adapter out of the socket, not by pulling the power connector out of the generator.

⚠ Do not connect or disconnect the applicator while the device is running. Connect or disconnect the applicator before starting the instrument or in the PAUSE state. Otherwise, the output circuits of the unit may malfunction.

⚠ The device meets the requirements of electromagnetic compatibility. However, it may cause radio interference or affect the operation of another nearby device. Mitigation of this effect can be achieved by mutually suitable placement of devices or their shielding (Table 1 - 3).

⚠ Always keep in mind that the device generates a magnetic field of one polarity of very low frequency, which can (similarly to a permanent magnet) affect some devices and equipment if they are located in its immediate vicinity (e.g. computer and TV screens, classic watches, credit cards with magnetic recording, etc.).

⚠ If the device is used in a home health care environment, avoid involving small children in the cords of the AC adapter and applicators, as this could cause strangulation.

⚠ Always shut down the appliance by pulling the plug of the mains adapter out of the socket.

⚠ Modifications of this device are prohibited!

⚠ Prohibition of the use of non-original accessories and combinations other than those specified by the manufacturer.

⚠ Do not perform service or maintenance while the device is in use.

Maintenance and repairs

The device does not require any special maintenance (ie adjustment, calibration, battery replacement, etc.). The user will verify the correct function by means of the supplied magnetic indicator. The instructions described below apply to healthcare providers (medical facilities).

The plastic applicator is cleaned with a cloth dampened in a detergent solution. Applicators with a textile surface are cleaned by luxing or brushing. The individual parts of the device must not be immersed in water during cleaning. For applicators that come into contact with the user, it is necessary to choose the frequency of cleaning according to the frequency of use and take into account the number of users.

Special attention must be paid to the mains adapter if the replacement part with plug is always fitted correctly. Also check for

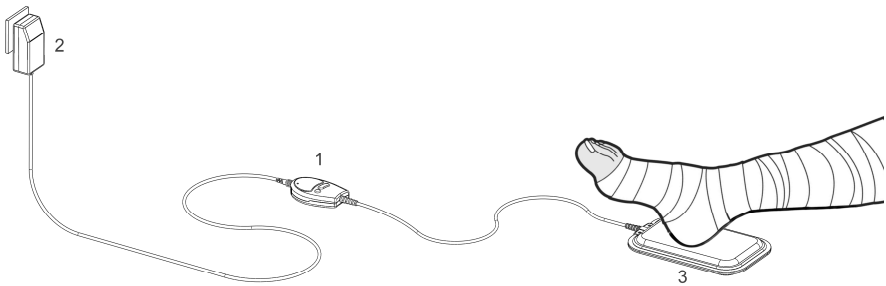
mechanical damage to the AC adapter (eg, falling to the ground). Do not use a mechanically damaged adapter and obtain a spare of the same type from your dealer.

Maintenance operations can be performed by the operator or directly by the patient himself (in the case of use outside the medical facility, it is the so-called designated operator).

All maintenance should only be performed with the device switched off (ie the mains adapter unplugged).

If the device malfunctions, contact your dealer. The device does not contain any user serviceable parts.

Diagram of the device assembly and its connection to the patient.



1 - own device LT-99 (generator)

2 - mains socket adapter

3 - optional LT series applicator (applied to the treated area)

Information for lay staff

In case of unexpected operation of the device, or unexpected events during operation of the device, contact the manufacturer.

Information and instructions for healthcare providers

Periodic safety and technical inspections of ZP

According to the Act on Medical Devices No. 268/2014 Coll. is a magnetotherapeutic / stimulation device type LT-99 included in the category of medical devices (ZP). The operator of this device is therefore obliged to ensure its regular maintenance and service.

Based on the classification rules listed in Annex No. 9 to Government Decree No. 54/2015 Coll., The LT-99 device was classified by the manufacturer as an active ZP into class IIa.

The health care provider is obliged to provide periodic safety and technical inspections of the device with a period of 2 years. The permitted range of repetition frequency of pulses, the maximum value of magnetic induction and the value of leakage current according to ČSN EN 60601-1 ed.2 + A1 are checked. The proof of the performed inspection is the inspection report, which must contain the name, identification and location of the device, date of inspection, in case of measurement also measured value, inspection result, deadline for further inspections or troubleshooting and name and signature of the employee who inspected carried out. It is also necessary to mark the inspected device, eg with a sticker or seal with the date of inspection.

Reporting the occurrence of an adverse event in ZP

According to the Medical Devices Act No. 268/2014 Coll. Manufacturers, importers, distributors, providers, authorized persons or persons performing the service of medical devices are obliged to notify the Institute (in our case, the State Institute for Drug Control) in writing of an adverse event that they have discovered or been informed about.

To report an adverse event to ZP, it is advisable to use the forms available on the SÚKL website.

Warranty

The warranty only covers workmanship and material defects. The warranty on quality, good function and manufacturing is only valid provided that the product has been used in accordance with the recommendations given in this manual.

The warranty does not apply to defects caused by mechanical damage, transportation, improper operation, inappropriate external conditions or if dismantled by an unauthorized person.

Neither the manufacturer nor the dealer will be liable for any damage due to improper use of the product. To make any warranty claim, contact your dealer.

Product: **ULTICARE Type LT-99** + plug-in adapter **FW7555M**

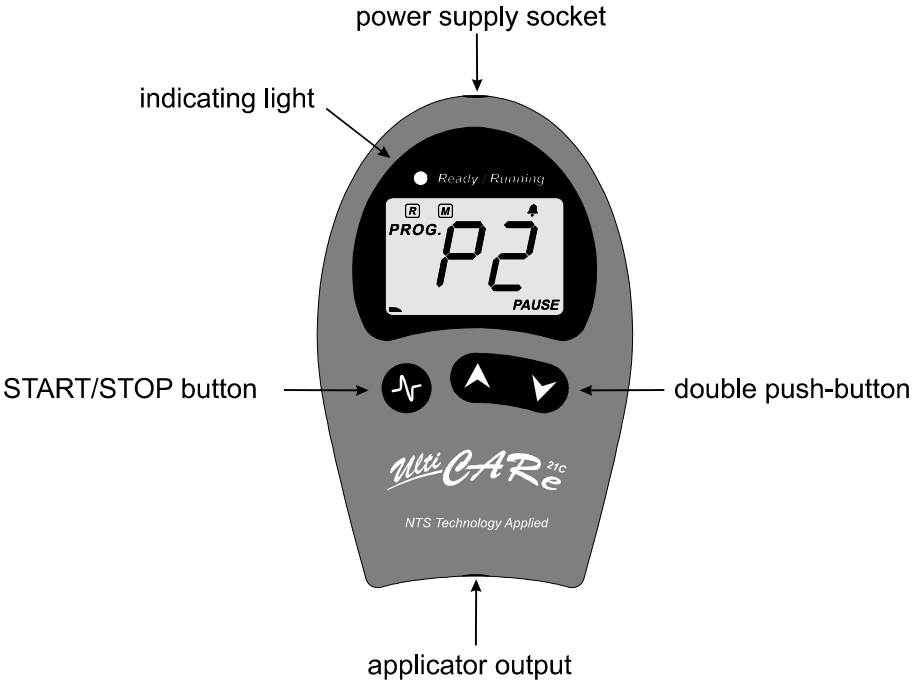
Applicators: **A1C**
A4C
ASE
B1C

Warranty period: _____ *from the date of sale*

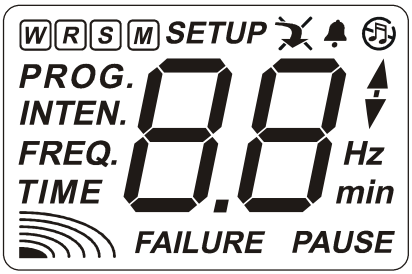
Seller: _____

Date of purchase: _____

Description of controls



Display layout



W – wobbling frequency
R – random frequency
S – single preset frequency
M – modulation NTS

Set of applicators for ULTICARE LT-99

The applicators are electromagnetic systems composed of one or more coils inserted into flexible or solid plastic body. The current pulses supplied by the control unit (generator) generates low frequency pulsed magnetic field around applicators.

Specification of intended use

Description of the medical device (ZP):
Device for low-frequency pulsed magnetotherapy, designed primarily for personal care.

Medical purpose - indications:
Treatment and alleviation of diseases, their prevention, medical rehabilitation.

Patient population:
1) age: at least 15 years
2) height: does not matter
3) weight: does not matter
4) health: see contraindications in these operating instructions
5) patient status: a) the patient is a user: mentally able, including the ability to recognize contraindications, understood these instructions for use and its appendix or the doctor's recommendation.
b) the patient is not a user: is not important

Exposure:
Body parts according to the diagnosis, application of attachments over clothing or a textile drape.

Designated user:
Age at least 15 years, ability to understand the instructions, slight impairment of vision, listening and memory do not matter, ability to manipulate the device.

Conditions of use:
Environment: use in a dry indoor environment, visibility does not depend on lighting (display with backlight), viewing distance of the display 30 to 50 cm, perpendicular view angle ± 30 °, operating temperature range 0 to 35 ° C.

Frequency of use: typical for personal treatment 3x20 minutes a day
Portability: a handheld device with a limited distance depending on the power supply

Operating principles:
Generation of low-frequency pulsed electromagnetic field to influence the biochemical and biophysical reaction in cells and between cells of a living organism. Improving the permeability of cell membranes, which is disrupted by the disease.

The operator or responsible organization should contact the manufacturer or the manufacturer's representative:
- to assist, if necessary, in the installation and adjustment, use or maintenance of the device
- for unexpected traffic or event reports

The estimated lifespan of the device and the accessories supplied with the device is 10 years.

The device must be installed and commissioned in accordance with the information provided in the accompanying documentation.

The device requires special precautions regarding electromagnetic compatibility (EMC), which must be installed and commissioned in accordance with the EMC information given in Tables 1 to 3 at the end of these operating instructions.

Wireless communication equipment, such as wireless home networks, cell phones, cordless phones, and their base stations and portable radios, may affect this device and should be located at least at a distance from this device according to Table 3.

Tables.

Instructions and manufacturer's declaration - electromagnetic radiation		
The LT-99 is intended for use in the electromagnetic environment specified below. The customer or user should ensure that it is used in such an environment.		
Radiation test	Conformity	Electromagnetic radiation - instructions
High frequency radiation CISPR 11	Group 1	The LT-99 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
High frequency radiation CISPR 11	Class B	LT-99 is suitable for use in all institutions, including households and those buildings that are directly connected to the public low-voltage power supply network that supplies buildings used for residential purposes.
Harmonic radiation IEC 61000-3-2	Class A	
Voltage fluctuations / flickering radiation IEC 61000-3-3	complies	

Table 1

Instructions and manufacturer's declaration - electromagnetic immunity			
The LT-99 is intended for use in the electromagnetic environment specified below. The customer or user should ensure that it is used in such an environment.			
Endurance test	Test level according to IEC 60601	Satisfactory level	Electromagnetic environment - instructions
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV for contact ±8 kV for air ±15 kV for air	±6 kV for contact ±8 kV for air ±15 kV for air	Floors must be wooden, concrete or ceramic tiles. If floors are covered with synthetic material, the relative humidity should

			alespoň 30%.
Fast electrical transient / group of pulses IEC 61000-4-4	±2 kV for power lines	±2 kV for power lines	The quality of the power supply network should be that typical of a commercial or hospital environment.
Shock pulseIEC 61000-4-5	±1 kV between lines ±2 kV between lines and ground	±1 kV in differential mode±2 kV for in-phase mode	The quality of the power supply network should be that typical of a commercial or hospital environment.
Short-term voltage drop, short interruptions and slow voltage changes on the supply input line IEC 61000-4-44	<5% U_t (>95% short-term decline U_t) for 0.5 cycle 40% U_t (60% short-term decline U_t) for 5 cycles 70% U_t (>30% short-term decline U_t) for 25 cycles <5% U_t (>95% short-term decline U_t) for 5 s	<5% U_t (>95% short-term decline U_t) for 0.5 cycle 40% U_t (60% short-term decline U_t) for 5 cycles 70% U_t (>30% short-term decline U_t) for 25 cycles <5% U_t (>95% short-term decline U_t) for 5 s	The quality of the power supply network should be that typical of a commercial or hospital environment. If the LT-99 user requires continuous operation during a power outage, it is recommended that it be powered from a continuous power supply.
Mains frequency magnetic field. (50/60 Hz) IEC 61000-4-8	3 A/m	3 A/m	The magnetic fields of the mains frequency should be at the levels of a typical typical location in a typical commercial or hospital environment.
IEC 61000-4-39	90 kHz, 8 A/m, CW modulation 134 kHz, 65A/m, PM 2.1kHz modulation 13.56 MHz, 7.5 A/m, PM 50 kHz modulation		Separation distance should be at least 0.15m
NOTE Ut is the AC mains voltage before the test level is applied.			

Table 2

Instructions and manufacturer's declaration - electromagnetic immunity			
The LT-99 is intended for use in the electromagnetic environment specified below. The customer or user should ensure that it is used in such an environment			
Endurance test	*Test level according to IEC 60601*	*Satisfactory level*	*Electromagnetic environment - instructions*
Conducted high frequency IEC 61000-4-6 Radiated high frequency IEC 61000-4-3	*3 V_{rms} 150 kHz až 80 MHz 3 V/m 80 MHz až 2,5 GHz*	*3 V_{rms} 3 V/m*	*Portable and mobile RF communications equipment should not be used closer to any part of the LT-99, including cables, than the recommended separation distance calculated from an equation appropriate for the transmitter frequency. Recommended separation distance d=1,2√P d=1,2√P 80 MHz až 800 MHz d=2,3√P 800 MHz až 2,5 GHz Where P is the nominal maximum output power of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m) The field strengths from fixed radio frequency transmitters, determined by an overview of the electromagnetic*

			characteristics of the site [a], shall be less than the appropriate level [b] in each frequency range. *Interference may occur in the vicinity of the device marked with the following mark.* 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies
NOTE 2 This guide may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects and people.

[a] Field strengths from fixed transmitters, such as base stations for radio (cellular / cordless) telephones and terrestrial mobile and amateur radio stations, for AM and FM radio and television broadcasts, cannot be accurately predicted theoretically. An overview of the electromagnetic characteristics at the site should be taken into account to assess the electromagnetic environment for permanent high frequency transmitters. If the measured field strength in the location in which the LT-99 is used exceeds the applicable RF frequency level above, the LT-99 should be observed to verify normal operation. If abnormal properties are observed, additional measures such as reorientation or relocation may be necessary.

[b] In the entire frequency range from 150 kHz to 80 MHz, the field strength should be less than 3 V / m.

Table 3

NOTE:

R E H A B I L I T A T I O N				
Indication	**Frequence**	**Exposure time**	**Time sched.**	**Note**
Osteoarthritis (knee & hip joints), other joints	19 - 25 Hz or P1	2 x 20 min	15 days	Place the A4C or B1C applicator over both the joints
Ankylosing spondylitis	The first three exposures up to 10Hz, then 12 - 18 Hz	1 x 20 min	15 days	A4C along the spine
„Tennis elbow“ and „frozen shoulder“	10 - 17 Hz or P1	2 x 20 min	10 – 15 days	A4C wrapped around the elbow/shoulder, A1C simultaneously to the C-spine
Posttraumatic joint‘s conditions	10 - 14 Hz or P1	1 or 2 x 20 min	▪)	A4C or B1C applicator put on the affected region
Complex regional pain syndrome (Sudeck syndrome incl.)	28 - 33 Hz or P1/P2	2 x 20 min	▪)	The area should be covered by A4C applicator
Heel exostosis	28 - 30 Hz or P1/P2	2 x 20 min	▪)	Step with the whole foot on the A1C or on folded A4C or put your foot into the B1C
Headaches due to cervical spine disorders	8 - 12 Hz or P1	1 x 20 min	▪)	A4C along the whole spine from teh cervial to lumbar region

R H E U M A T O L O G Y				
Indication	**Frequence**	**Exposure time**	**Time sched.**	**Note**
Rheumatoid arthritis	10 - 19 Hz or P1	2 x 20 min	▪)	A4C applicator to the affected point(s) and then to the renal region
Big joint's swelling (posttraumatic incl.)	20 - 25 Hz or P1	1 x 20 min	▪)	Wrap the whole joint with A4C or put the B1C applicator on
Reduced movability of small hand joints	15 - 20 Hz or P1	1 or 2 x 20 min	▪)	Put both your hands on the A1C or half-folded A4C, or into the B1C close to the circle
Rheumatoid arthritis in children	10 - 14 Hz or P1	2 x 20 min	▪)	A4C applicator to the affected point(s) and then to the renal region
Myofascial syndrome	15 - 20 Hz or P1	2 x 20 min	▪)	A4C should be extended along the affected area
Fibromyalgia	P2	2 x 20 min	▪)	A4C along the spine

Note:

In rheumatic conditions we recommend to start with the lowest frequency in program 3 in order to avoid possible painful reaction to the factor applied. If no adverse effects is seen during the frst 3 days you can continue with higher frequencies in step 1 or 2 Hz a day up to 25 Hz.

SURGERY – ORTHOPEDICS				
Indication	**Frequence**	**Exposure time**	**Time schedule**	**Note**
Fresh fractures	15 - 25 Hz or P1	4 x 20 min	15 days	As soon as possible after the primary treatment. A4C should be wrapped over the zone of the fracture
Pseudoarthrosis – non-healing fracture	16 Hz (↕P3)	4 or 5x 20 min	▪)	A4C over the zone of the fracture
Acute osteomyelitis	25 - 30 Hz or P1	2 x 20 min	▪)	A4C over the zone of the osteomyelitis
Chronic osteomyelitis	10 - 16 Hz or P1	4 or 5 x 20 min	▪)	A4C over the zone of the osteomyelitis
Delayed fracture healing	10 - 25 Hz or P1	4 x 20 min	▪)	A4C over the zone of the fracture
Cacification improvement	72 Hz eventually P2	2 x 20 min	▪)	A4C over the zone of interest
Looping endoprothesis	10 - 25 Hz or P1	3 x 20 min	▪)	Place the A4C over the affected area or put the extremity through the B1C applicator

GYNECOLOGY				
Indication	**Frequence**	**Exposure time**	**Time schedule**	**Note**
Small pelvis adhesions	10 - 15 Hz or P1	1 x 20 min	▪)	Place the A4C perpendicularly over the lower part of the abdomen
Pains following ruptures of ovarial cysts	12 - 17 Hz or P1	1 x 20 min	▪)	Place the A4C perpendicularly over the lower part of the abdomen
Endometriosis	20 - 25 Hz or P1	1 x 20 min	▪)	Place the A4C perpendicularly over the lower part of the abdomen

DERMATOLOGY				
Indikace	**Frekvence**	**Exposure time**	**Time schedule**	**Note**
Crural ulcers	15 - 20 Hz or P1	2 x 20 min	▪)	Fold the A4C and place it over the affected zone. The bandage does not interfere with the magnetic field.
Skin itching	25 - 30 H or P1	2 x 20 min	▪)	The whole surface should be covered by A4C
Psoriasis vulgaris	24 - 29 Hz or P1	1 x 20 min	▪)	Place the A4C over the affected surface

NEUROLOGY				
Indikace	**Frekvence**	**Exposure time**	**Time schedule**	**Note**
Low back pains	26 - 30 Hz or P1/P2	1or 2 x 20 min	10 days minimally	A4C along the whole spine
Peripheral nerves palsies – due to surgery or trauma	8 - 12 Hz or P1	Up to 5 x20 min	▪)	Folded A4C place over the zone of the trauma
Carpal tunnel syndrome	10 - 15 Hz or P1	2 x 20 min	▪)	The wrist should be placed over the A1C or folded A4C
Trigeminal neuralgia	14 - 18 Hz or P1	1 or 2 x 20 min	▪)	A1C or folded A4C put on the affected area
Facial nerve palsy	10 - 14 Hz or P1	2 or 3 x 20 min	▪)	Put the A1C or folded A4C on the face

UROLOGY				
Indication	**Frequence**	**Exposure time**	**Time schedule**	**Note**
Chronic prostatitis	22 - 27 Hz or P1	1 x 20 min	24 days	Sit on the A1C, B1C or folded A4C applicator
Sexual dysfunction	15 - 18 Hz or P1	1 x 20 min	▪)	Sit on A1C, B1C or folded A4C
Enuresis nocturna, enuresis diurna	25 Hz (↕P3)	1 x 20 min	10 days	In sitting position, one field of the A4C is in the perineal region and fold the rest of the applicator up to the lumbar region

STIMULATION				
Indication	**Frequence**	**Exposure time**	**Time schedule**	**Note**
Immune system activation and reinforcement	2 - 72 Hz (P2)	2 x 20 min	14 days, then 14 days off etc.	The A4C should be placed along the spine from cervical region down
Metabolic improvement	4 – 40 Hz (P1)	2 x 20 min	14 days, then 14 days off etc.	The A4C should be placed along the spine from cervical region down

Notes:

- Multiple daily exposure should be spread out the whole day
- P1 and P2 are universal therapeutic programs (in LT-99, LT-100, VF-XP)
- P1/P2 means alternating of the programs P1 and P2
- ↕P3 means the required frequency is set in P3 mode (in LT-99, LT-100)
- B1C applicator use is equal as the BioTorus LT-100 device

- Application regiment values are for your orientation. In some very rare cases an impairment may occur especially in magnetostimulation of inflammatory conditions. This is no reason to stop the magnetotherapy but the application should be changed typically by frequency reduction to 50% of the initial value. The total dosis can be reduced by application time reduction or by both values. When an improvement dones the reduced values may increase again.
- Magnetothearpy sholud be understood as a part of the komplex treatment that in certain cases may be thedecisive in treatment succes, e.g. anquilosing spondilitis or prostatitis.
- If you use our device regularly there are data showing that pain attacks can be eliminated for considerable long time. We have data showing this effect in ankylosing spondylitis, osteoarthritis, rheumatoid arthritis in children, enuresis in children and fibromyalgie.
- In sport medicíne the magnetotherapy has amplified effects of comonly used rehabilitation and regeneration procedures.

§ Magnetotherapy as any other kind of physiotherapy represents a weak stimulus. That´s why it must be applied for a long time and regularly. E.g. a positive effects in painful and inflammatory conditions may come after three days of application but there are rare cases where the first signs of improvement were reached after two weeks of daily application. In cases of slow fractures healing the time required for an effect is still longer.

§ When the problems reduce or disappear, this fact does not mean that the therapy should be stopped suddenly. Much better is to go on with the same regimen for another week and then reudce the number of applications stepwisely, e.g. Mo, Tu, Fr. If minimum of the problems returns then start with regular magnetotherapy again for at least one week.