



Elektronika i Elektromedycyna

MANUFACTURER

OF PHYSIOTHERAPY EQUIPMENT

**Electrotherapy
Magnetotherapy
Laser therapy
Ultrasound therapy
CO₂ therapy**

*Serving you since
1986!*

www.eie.com.pl



Contents

Company	2
Product comparison chart	3
Multitronic MT-8 (<i>electrotherapy + laser + ultrasound + magnetotherapy</i>)	4
Multitronic MT-6 (<i>electrotherapy + laser + ultrasound</i>)	6
Multitronic MT-5 (<i>electrotherapy + ultrasound</i>)	8
Multitronic MT-4 (<i>electrotherapy + laser</i>)	10
Multitronic MT-3 (<i>electrotherapy</i>)	12
Electrotherapy accessories	13
Solatronic SLE (<i>electrotherapy + laser + ultrasound</i>)	14
Lasertronic LT-3 (<i>laser</i>)	16
Laser accessories	17
Laser scanner	18
Solatronic SL-3 (<i>laser + ultrasound</i>)	19
Sonotronic US-2 (<i>ultrasound</i>)	20
Ultrasound accessories	21
Automatic ultrasonic head	22
Magnetronic MF-24 (<i>magnetotherapy + laser</i>)	24
Magnetronic MF-12 (<i>magnetotherapy</i>)	25
Magnetotherapy accessories	26
Magnetronic MF-2 (<i>portable magnetotherapy</i>)	28
Accessories for portable magnetotherapy	29
CARBObed (<i>CO₂ therapy</i>)	30
Equipment trolleys	31

EiE Poland – over 35 years together!

EXPERIENCE

Elektronika i Elektromedycyna (Electronics and Electromedicine) was founded in 1986 in Otwock near Warsaw. For more than 35 years we have put into action many thousands of physiotherapy devices of several generations. Our equipment is used extensively all over Poland as well as in many places worldwide.

INNOVATION

When creating our devices we use experience gained by our company, while keeping up with the times.

Our latest line of products has been uniquely designed. They come with original casings and full colour graphic touch panel screens.

Our products are easy to use – they are operated intuitively despite wide range of functions and parameters.

RELIABILITY

Our units are designed for continuous work – very often they work 2 shifts a day all year round. This is not a challenge for them. We support maintenance of the equipment for many years, some 15 or 20 years olds still doing fine whenever necessary.



1986



NOW



Short comparison of devices

Product	Electrotherapy	Laser Therapy	Ultrasound Therapy	Magneto-therapy	Simultaneous treatments	Display type
Multitronic MT-8	2 channels	1 channel	1 channel	1 channel	2	colour graphic touch panel 4.3"
Multitronic MT-6	2 channels	1 channel	1 channel		2	colour graphic touch panel 4.3"
Multitronic MT-5	2 channels		1 channel		2	colour graphic touch panel 4.3"
Multitronic MT-4	2 channels	1 channel			2	colour graphic touch panel 4.3"
Multitronic MT-4E	2 channels				2	colour graphic touch panel 4.3"
Solatronic SLE	1 channel	1 channel	1 channel		2	colour graphic touch panel 4.3"
Solatronic SL-3		1 channel	1 channel		2	colour graphic touch panel 4.3"
Lasertronic LT-3		2 channels + scanner option			2	colour graphic touch panel 4.3"
Sonotronic US-2			1 channel 2 sockets		1	colour graphic touch panel 4.3"
Multitronic MT-3	2 channels				1	text (9mm)
Magnetronic MF-24		1 channel		2 channels 4 sockets	5	colour graphic touch panel 5.7"
Magnetronic MF-12				1 channel 2 sockets	2	colour graphic touch panel 4.3"
Magnetronic MF-2				2 channels	2	colour graphic touch panel 4.3"

Device colour:



standard green



optional (no extra charge) silver/gray



optional (extra charge) from the RAL palette

Multitronic MT-8

Characteristics

- Modern device for **two-channel electrotherapy**, laser therapy, magnetotherapy and ultrasound stimulation
- Two simultaneous treatments option
- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments

Electrotherapy

- Wide range of 1- and 2-circuit electric currents
- CC and CV workmodes
- Microcurrent
- **Combined therapy** (with ultrasound)
- Waves of different types (electrogymnastics)
- Sequences of diadynamic currents
- Acoustic signalling of a break in the treatment circuit
- Electrode test
- Semi-automatic electrodiagnostics (I/t curve, calculation of coefficients)
- Safe reaction to power supply break

Multitronic MT-8 provides the following treatments:

- **Interferential:** static (classic), dynamic, isoplanar, dipole vector, 2-pole (premodulated) and interrupted
- **Diadynamic** (Bernard's): DF, MF, RS, MM, CP, LP, CPiso, LPiso (with adjusted sequence)
- **Stimulation of flaccid paresis** (medium frequency pulsed current with triangle, rectangle, trapezium, or sine modulation – both unipolar and bipolar)
- Stimulation of spastic paresis (**tonolysis**) in two-channel mode
- **TENS:** standard, asymmetric, alternating, including so called „irritating“ modulation
- **BURST TENS**
- **HVS** (High Voltage Stimulation)
- **Kotz / Russian stimulation**
- **Träbert** modulation (UR) (2-5)
- **Faradic, Neofaradic** modulation
- Various wave modulations with wide range of adjustment for **electrical muscle stimulation**
- **NMES** (Neuromuscular Electrical Stimulation)
- **FES** (Functional Electrical Stimulation)
- **IDC** (Interrupted Direct Current)
- **DC** (Galvanization)
- **Ionophoresis**
- **Microcurrent**



General data

Power supply	~230V, 50Hz, 70VA
Electrical protection class	I, BF type
Dimensions	335x270x125mm
Weight of control unit	3.4 kg

Electrotherapy technical data

Interferential current	
Current (RMS)	0÷60mA
Interferential frequency	1÷200Hz
Medium frequency pulsed current	
Amplitude	0÷100mA
Pulse amplitude (tonolysis)	0÷100mA
Pulse duration / width	5÷990ms
Break duration	100÷4000ms
Delay time (tonolysis)	5÷150ms
Diadynamic current	
Mean current for DF	0÷40mA
Mean current for MF	0÷20mA
TENS, HVS	
Amplitude	0÷100mA
Frequency	1÷200Hz
Pulse duration	50÷300µs
KOTZ / Russian stimulation	
Amplitude	0÷100mA
TRÄBERT current / Ultra Reiz / 2-5	
Amplitude	0÷100mA
GALVANIC current	
Current	0÷50mA
Waves / electrical muscle stimulation	
Pulse duration	0.5÷60s
Break duration	1.0÷60s
Rise and fall time	0÷100%
CV mode	
Voltage	0÷100V
Voltage for TENS	0÷140V
Microcurrents	
Amplitude	0÷1000µA

Laser Therapy

- Continuous and pulse mode
- Repeat dose feature
- Laser power sensor

Laser class	3B
Treatment timer	1s÷99min

Ultrasound Therapy

- Continuous and pulse mode
- Double-frequency probes:
1MHz and 3.3MHz in 5cm² or 1cm² size,
automatic head 6x3cm²
- Water-resistant ultrasound heads
- Sound and visual signals of ultrasound head
contact with patient
- Adjustment of patient contact sensitivity

Ultrasound frequency	1MHz or 3.3MHz
Max. continuous power	12.5W
Work mode	continuous or pulsed
Pulse frequency	10÷150Hz
Pulse duty cycle	5÷100%
Treatment timer	30s÷30min

Magnetotherapy

- Wide range of modulation frequency
- Specialized accessories: different shapes and sizes
- Treatment modulations: sine, rectangle, triangle
(each unipolar and bipolar),
MX1 – change of shape with constant frequency,
MX2 – change of shape with alternating frequency

Frequency	1÷150Hz
Magnetic field intensity change (depends on applicator type)	0÷8mT
Workmode	continuous or interrupted
Treatment timer	1÷99min

Standard accessories

- operating manual
- set of electrodes, viscose pads, fixing bands, cables
- door warning labels

Optional accessories

- Selection of different types of electrodes and
other electrotherapy accessories (see p. 13)
- Laser probes (see p. 17)
- Ultrasound heads (see p. 21-23)
- Magnetotherapy applicators (see p. 29)
- Laser protective eyewear
- Carrying bag for device and accessories
- Large stand for cluster laser probes

Optional applicators

Ultrasound applicators (see p. 21-23)

- **SU-1:** Surface 1.3cm²
frequency 1MHz or 3.3MHz
maximum continuous power
density 2.5W/cm²
- **SU-5:** Surface 5cm²
frequency 1MHz or 3.3MHz
maximum continuous power
density 2.5W/cm²
- **SUP-6:** Surface 6x3cm²
frequency 1MHz or 3.3MHz
maximum continuous power
density 2.5W/cm²

Laser applicators (see p. 17)

- **S-1N:** single-diode, infrared (IR),
50mW/905nm, high pulse power (50W)
- **S-2N:** single-diode, red (R), 40mW/660nm
- **S-2B:** single – diode, red (R), 80mW/660nm
- **S-3N:** single-diode, infrared (IR),
400mW/808nm
- **SP-1B:** cluster, red (R), 720mw/660nm
- **SP-2B:** cluster, two-colour (R/IR),
1040mW/660nm+808nm
- **SP-3:** cluster, infrared (IR), 1440mW/808nm

Magnetic applicators (see p. 29)

- **APE-1:** flexible applicator
- **AP-1:** flat applicator
(size of approx. A4)
- **AP-2:** flat applicator
(size of approx. 2xA4)
- **AS-204:** reel applicator
200mm

Multitronic MT-6

Three therapies in one device

Characteristics

- Modern device for **two-channel electrotherapy**, laser therapy and ultrasound stimulation
- Two simultaneous treatments option
- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments

Electrotherapy

- Wide range of 1- and 2-circuit electric currents
- CC and CV workmodes and microcurrent
- **Combined therapy** (with ultrasound)
- Waves of different types (electrogymnastics)
- Sequences of diadynamic currents
- Acoustic signalling of a break in the treatment circuit
- Electrode test
- Semi-automatic electrodiagnostics (I/t curve, calculation of coefficients)
- Safe reaction to power supply break



General data

Power supply	~230V, 50Hz, 70VA
Electrical protection class	I, BF type
Dimensions	335x270x125mm
Weight of control unit	3.4kg

Electrotherapy technical data

Interferential current

Current (RMS)	0÷60mA
Interferential frequency	1÷200Hz

Medium frequency pulsed current

Amplitude	0÷100mA
Pulse amplitude (tonolysis)	0÷100mA
Pulse duration / width	5÷990ms
Break duration	100÷4000ms
Delay time (tonolysis)	5÷150ms

Diadynamic current

Mean current for DF	0÷40mA
Mean current for MF	0÷20mA

TENS, HVS

Amplitude	0÷100mA
Frequency	1÷200Hz
Pulse duration	50÷300µs

KOTZ / Russian stimulation

Amplitude	0÷100mA
-----------	---------

TRÄBERT current / Ultra Reiz / 2-5

Amplitude	0÷100mA
-----------	---------

GALVANIC current

Current	0÷50mA
---------	--------

Waves / electrical muscle stimulation

Pulse duration	0.5÷60s
Break duration	1.0÷60s
Rise and fall time	0÷100%

CV mode

Voltage	0÷100V
Voltage for TENS	0÷140V

Microcurrents

Amplitude	0÷1000µA
-----------	----------

Multitronic MT-6 provides the following electrotherapy treatments:

- **Interferential:** static (classic), dynamic, isoplanar, dipole vector, 2-pole (premodulated) and interrupted
- **Diadynamic** (Bernard's): DF, MF, RS, MM, CP, LP, CPiso, LPiso (with adjusted sequence)
- **Stimulation of flaccid paresis** (medium frequency pulsed current with triangle, rectangle, trapezium, or sine modulation – both unipolar and bipolar)
- Stimulation of spastic paresis (**tonolysis**) in two-channel mode
- **TENS:** standard, asymmetric, alternating, including so called „irritating“ modulation
- **BURST TENS**
- **HVS** (High Voltage Stimulation)
- **Kotz** / Russian stimulation
- **Träbert** modulation (UR) (2–5)
- **Faradic, Neofaradic** modulation
- Various wave modulations with wide range of adjustment for electrical muscle stimulation
- **NMES (Neuromuscular Electrical Stimulation)**
- **FES (Functional Electrical Stimulation)**
- **IDC (Interrupted Direct Current)**
- **DC (Galvanization)**
- **Ionophoresis**
- **Microcurrent**

Laser Therapy

- Continuous and pulse mode
- Repeat dose feature
- Laser power sensor

Laser class	3B
Treatment timer	1s÷99min

Ultrasound Therapy

- Continuous and pulse mode
- Double-frequency probes: 1MHz and 3.3MHz in 5cm² or 1cm² size, automatic head 6x3cm²
- Water-resistant ultrasound heads
- Sound and visual signals of ultrasound head contact with patient
- Adjustment of patient contact sensitivity

Ultrasound frequency	1MHz or 3.3MHz
Max. continuous power	12.5W
Work mode	continuous or pulsed
Pulse frequency	10÷150 Hz
Pulse duty cycle	5÷100%
Treatment timer	30s÷30min

Standard accessories

- operating manual
- set of electrodes, viscose pads, fixing bands, cables
- door warning labels

Optional accessories

- Selection of different types of electrodes and other electrotherapy accessories ([see p. 13](#))
- Laser probes ([see p. 17](#))
- Ultrasound heads ([see p. 21–23](#))
- Laser protective eyewear
- Carrying bag for device and accessories
- Large stand for cluster laser probes

Optional applicators

Ultrasound applicators ([see p.19–20](#))

- **SU-1:** Surface 1.3cm²
frequency 1MHz or 3.3MHz
maximum continuous power density 2.5W/cm²
- **SU-5:** Surface 5cm²
frequency 1MHz or 3.3MHz
maximum continuous power density 2.5W/cm²
- **SUP-6:** Surface 6x3cm²
frequency 1MHz or 3.3MHz
maximum continuous power density 2.5W/cm²

Laser applicators ([see p. 15](#))

- **S-1N:** single-diode, infrared (IR), 50mW/905nm, high pulse power (50W)
- **S-2N:** single-diode, red (R), 40mW/660nm
- **S-2B:** single – diode, red (R), 80mW/660nm
- **S-3N:** single-diode, infrared (IR), 400mW/808nm
- **SP-1B:** cluster, red (R), 720mw/660nm
- **SP-2B:** cluster, two-colour (R/IR), 1040mW/660nm+808nm
- **SP-3:** cluster, infrared (IR), 1440mW/808nm

Multitronic MT-5

Two therapies in one device



Characteristics

- Modern device for **two-channel electrotherapy** and ultrasound stimulation
- Two simultaneous treatments option
- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments

Electrotherapy

- Wide range of 1- and 2-circuit electric currents
- CC and CV workmodes and microcurrent
- **Combined therapy** (with ultrasound)
- Waves of different types (electrogymnastics)
- Sequences of diadynamic currents
- Acoustic signalling of a break in the treatment circuit
- Electrode test
- Semi-automatic electrodiagnostics
- (I/t curve, calculation of coefficients)
- Safe reaction to power supply break

General data

Power supply	~230V, 50Hz, 70VA
Electrical protection class	I, BF type
Dimensions	335x270x125mm
Weight of control unit	3.4 kg

Electrotherapy technical data

Interferential current

Current (RMS)	0÷60mA
Interferential frequency	1÷200Hz

Medium frequency pulsed current

Amplitude	0÷100mA
Pulse amplitude (tonolysis)	0÷100mA
Pulse duration / width	5÷990ms
Break duration	100÷4000ms
Delay time (tonolysis)	5÷150ms

Diadynamic current

Mean current for DF	0÷40mA
Mean current for MF	0÷20mA

TENS, HVS

Amplitude	0÷100mA
Frequency	1÷200Hz
Pulse duration	50÷300µs

KOTZ / Russian stimulation

Amplitude	0÷100mA
-----------	---------

TRÄBERT current / Ultra Reiz / 2-5

Amplitude	0÷100mA
-----------	---------

GALVANIC current

Current	0÷50mA
---------	--------

Waves / electrical muscle stimulation

Pulse duration	0.5÷60s
Break duration	1.0÷60s
Rise and fall time	0÷100%

CV mode

Voltage	0÷100V
Voltage for TENS	0÷140V

Microcurrents

Amplitude	0÷1000µA
-----------	----------

Multitronic MT-5 provides the following electrotherapy treatments:

- **Interferential:** static (classic), dynamic, isoplanar, dipole vector, 2-pole (premodulated) and interrupted
- **Diadynamic** (Bernard's): DF, MF, RS, MM, CP, LP, CPiso, LPiso (with adjusted sequence)
- **Stimulation of flaccid paresis** (medium frequency pulsed current with triangle, rectangle, trapezium, or sine modulation – both unipolar and bipolar)
- Stimulation of spastic paresis (**tonolysis**) in two-channel mode
- **TENS:** standard, asymmetric, alternating, including so called „irritating“ modulation
- **BURST TENS**
- **HVS** (High Voltage Stimulation)
- **Kotz** / Russian stimulation
- **Träbert** modulation (UR) (2–5)
- **Faradic, Neofaradic** modulation
- Various wave modulations with wide range of adjustment for electrical muscle stimulation
- **NMES (Neuromuscular Electrical Stimulation)**
- **FES (Functional Electrical Stimulation)**
- **IDC (Interrupted Direct Current)**
- **DC (Galvanization)**
- **Ionophoresis**
- **Microcurrent**

Ultrasound Therapy

- Continuous and pulse mode
- Double-frequency probes: 1MHz and 3.3MHz in 5cm² or 1cm² size, automatic head 6x3cm²
- Water-resistant ultrasound heads
- Sound and visual signals of ultrasound head contact with patient
- Adjustment of patient contact sensitivity

Ultrasound frequency	1MHz lub 3.3MHz
Max. continuous power	12.5W
Work mode	continuous or pulsed
Pulse frequency	10÷150Hz
Pulse duty cycle	5÷100%
Treatment timer	30s÷30min

Standard accessories

- operating manual
- set of electrodes, viscose pads, fixing bands, cables

Optional accessories

- Selection of different types of electrodes and other electrotherapy accessories (see p. 13)
- Ultrasound heads (see p. 21–23)
- Carrying bag for device and accessories

Optional applicators

Ultrasound applicators (see p.21–23)

- **SU-1:** Surface 1.3cm²
frequency 1MHz or 3.3MHz
maximum continuous power density 2.5W/cm²
- **SU-5:** Surface 5cm²
frequency 1MHz or 3.3MHz
maximum continuous power density 2.5W/cm²
- **SUP-6:** Surface 6x3cm²
frequency 1MHz or 3.3MHz
maximum continuous power density 2.5W/cm²

Multitronic MT-4

Two therapies in one device

Characteristics

- Modern device for **two-channel electrotherapy** and laser therapy
- Two simultaneous treatments option
- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments

Electrotherapy

- Wide range of 1- and 2-circuit electric currents
- CC and CV workmodes and microcurrent
- Waves of different types (electrogymnastics)
- Sequences of diadynamic currents
- Acoustic signalling of a break in the treatment circuit
- Electrode test
- Semi-automatic electrodiagnostics (I/t curve, calculation of coefficients)
- Safe reaction to power supply break



General data

Power supply	~230V, 50Hz, 70VA
Electrical protection class	I, BF type
Dimensions	335x270x125mm
Weight of control unit	3.1 kg

Electrotherapy technical data

Interferential current	
Current (RMS)	0÷60mA
Interferential frequency	1÷200Hz
Medium frequency pulsed current	
Amplitude	0÷100mA
Pulse amplitude (tonolysis)	0÷100mA
Pulse duration / width	5÷990ms
Break duration	100÷4000ms
Delay time (tonolysis)	5÷150ms
Diadynamic current	
Mean current for DF	0÷40mA
Mean current for MF	0÷20mA
TENS, HVS	
Amplitude	0÷100mA
Frequency	1÷200Hz
Pulse duration	50÷300µs
KOTZ / Russian stimulation	
Amplitude	0÷100mA
TRÄBERT current / Ultra Reiz / 2-5	
Amplitude	0÷100mA
GALVANIC current	
Current	0÷50mA
Waves / electrical muscle stimulation	
Pulse duration	0.5÷60s
Break duration	1.0÷60s
Rise and fall time	0÷100%
CV mode	
Voltage	0÷100V
Voltage for TENS	0÷140V
Microcurrents	
Amplitude	0÷1000µA

Multitronic MT-4 provides the following electrotherapy treatments:

- **Interferential:** static (classic), dynamic, isoplanar, dipole vector, 2-pole (premodulated) and interrupted
- **Diadynamic** (Bernard's): DF, MF, RS, MM, CP, LP, CPiso, LPiso (with adjusted sequence)
- **Stimulation of flaccid paresis** (medium frequency pulsed current with triangle, rectangle, trapezium, or sine modulation – both unipolar and bipolar)
- Stimulation of spastic paresis (tonolysis) in two-channel mode
- **TENS:** standard, asymmetric, alternating, including so called „irritating“ modulation
- **BURST TENS**
- **HVS** (High Voltage Stimulation)
- **Kotz** / Russian stimulation
- **Träbert** modulation (UR) (2-5)
- **Faradic, Neofaradic** modulation
- Various wave modulations with wide range of adjustment for electrical muscle stimulation
- **NMES (Neuromuscular Electrical Stimulation)**
- **FES (Functional Electrical Stimulation)**
- **IDC (Interrupted Direct Current)**
- **DC (Galvanization)**
- **Ionophoresis**
- **Microcurrent**

Laser Therapy

- Continuous and pulse mode
- Repeat dose feature
- Laser power sensor

Laser class	3B
Treatment timer	1s÷99min

Standard accessories

- operating manual
- set of electrodes, viscose pads, fixing bands, cables
- door warning labels

Optional accessories

- Selection of different types of electrodes and other electrotherapy accessories ([see p. 13](#))
- Laser probes ([see p. 17](#))
- Laser protective eyewear
- Carrying bag for device and accessories
- Large stand for cluster laser probes

Optional applicators

Laser applicators ([see p. 17](#))

- **S-1N:** single-diode, infrared (IR), 50mW/905nm, high pulse power (50W)
- **S-2N:** single-diode, red (R), 40mW/660nm
- **S-2B:** single – diode, red (R), 80mW/660nm
- **S-3N:** single-diode, infrared (IR), 400mW/808nm
- **SP-1B:** cluster, red (R), 720mw/660nm
- **SP-2B:** cluster, two-colour (R/IR), 1040mW/660nm+808nm
- **SP-3:** cluster, infrared (IR), 1440mW/808nm



Carrying bags

Most of our devices are portable and can be used at patient's home. We recommend using our carrying bag for comfortable and safe transportation of the device and accessories.

Multitronic MT-3

Characteristics

- Modern design available in a range of colours
- Ready to use preset treatment programs for popular treatments
- User-defined programs
- Independent adjustment of treatment settings
- Adjustable diadynamic sequences
- Two treatment circuits with independent amplitude setting
- Semi-automatic electrodiagnostics (graphic presentation of I/t curve, automatic calculation of coefficients), stores last test record
- Large LCD screen with easy to read data
- Safe reaction to power supply break
- Detection of a break in the treatment circuits
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments

Multitronic MT-3 provides the following treatments:

- **Interferential:** static (classic), dynamic, isoplanar, dipole vector, 2-pole (premodulated) and interrupted
- **Diadynamic** (Bernard's): DF, MF, RS, MM, CP, LP, CPiso, LPiso (with adjusted sequence)
- **Stimulation of flaccid paresis** (medium frequency pulsed current with triangle, rectangle, trapezium, or sine modulation – both unipolar and bipolar)
- Stimulation of spastic paresis (**tonolysis**) in two-channel mode
- **TENS:** standard, asymmetric, alternating, including so called „irritating“ modulation
- **BURST TENS**
- **HVS** (High Voltage Stimulation)
- **Kotz** / Russian stimulation
- **Träbert** modulation (UR) (2-5)
- **Faradic, Neofaradic** modulation
- Various wave modulations with wide range of adjustment for electrical muscle stimulation
- **NMES (Neuromuscular Electrical Stimulation)**
- **FES (Functional Electrical Stimulation)**
- **IDC (Interrupted Direct Current)**
- **DC (Galvanization)**
- **Ionophoresis**
- **Microcurrent**



General data

Power supply	~230V, 50Hz, 70VA
Electrical protection class	II, BF type
Dimensions	335x270x125mm
Weight of control unit	3.0kg

Electrotherapy technical data

Interferential current

Current (RMS)	0÷60mA
Interferential frequency	1÷200Hz

Medium frequency pulsed current

Amplitude	0÷100mA
Pulse amplitude (tonolysis)	0÷100mA
Pulse duration / width	5÷990ms
Break duration	100÷4000ms
Delay time (tonolysis)	5÷150ms

Diadynamic current

Mean current for DF	0÷30mA
Mean current for MF	0÷15mA

TENS, HVS

Amplitude	0÷100mA
Frequency	1÷200Hz
Pulse duration	50÷250µs

KOTZ / Russian stimulation

Amplitude	0÷100mA
-----------	---------

TRÄBERT current / Ultra Reiz / 2-5

Amplitude	0÷100mA
-----------	---------

GALVANIC current

Current	0÷50mA
---------	--------

Waves / electrical muscle stimulation

Pulse duration	0.5÷8.0s
Break duration	1.0÷16.0s
Rise and fall time	0÷100%

Standard accessories

- operating manual
- set of electrodes, viscose pads, fixing bands, cables

Optional accessories

- Selection of different types of electrodes and other electrotherapy accessories (see p. 13)
- Carrying bag for device and accessories

Examples of electrotherapy accessories

Full offer is available on our website www.eie.com.pl



P-75 pad



P-50 pad



E-S 75 electrode



2mm and 4mm
connection

E-S 50 electrode



E-A 75 electrode



E-A 50 electrode



E-P electrode with replaceable tips



K-4 cable



O-RIS band



K-2L cable

Solatronic SLE

Three therapies in one device

Characteristics

- Modern device for electrotherapy, ultrasound and laser therapy
- Two simultaneous treatments option
- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Convenient probe holder by the control unit
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments

Electrotherapy

- Setting of different waveforms for electrical muscle stimulation (EMS)
- Setting of sequence of diadynamic current
- Combined therapy (with ultrasound)
- User-friendly semi-automatic electrodiagnostics (graphic presentation of I/t curve, automatic calculation of coefficients), stores last test records
- Safe reaction to power supply break
- Acoustic signalling of a break in the treatment circuits



General data

Power supply	~230V 10%, 50 Hz, 70VA
Electrical protection class	I, BF type
Dimensions	335 x 270 x 125mm
Weight of control unit	3.5 kg

Electrotherapy technical data

Interferential current (premodulated)

Current (RMS)	0÷60mA
Interferential frequency	1÷200Hz

Medium frequency pulsed current

Amplitude	0÷100mA
-----------	---------

Diadynamic current

Mean current for DF	0÷40mA
Mean current for MF	0÷20mA

TENS, HVS

Amplitude	0÷100mA
Frequency	1÷200Hz
Impulse duration	50÷300µs

KOTZ / Russian stimulation

Amplitude	0÷100mA
-----------	---------

TRÄBERT current / Ultra Reiz 2-5

Amplitude	0÷100mA
-----------	---------

GALVANIC current

Current	0÷50mA
---------	--------

Waveform / electrical muscle stimulation

Impulse duration	0.5÷60s
Break duration	1.0÷60s
Rise and fall time	0÷100%

Laser Therapy

- Impulse and continuous operation
- Dose repetition function
- Laser power measurement sensor

Laser class	3B
Duration of laser treatment	1s÷99min

Ultrasound Therapy

- Continuous and pulse mode
- Double-frequency probes:
1MHz and 3.3MHz in 5cm² or 1cm² size,
automatic head with the surface of 6x3cm²
- Water-resistant ultrasound heads
- Sound and visual signals of ultrasound head
contact with patient
- Adjustment of touch sensitivity of head

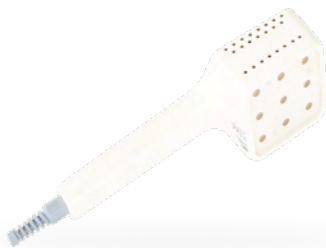
Ultrasound frequency	1MHz or 3.3MHz
Max. continuous power	12.5W
Work mode	continuous or pulsed
Pulse frequency	10÷150Hz
Pulse duty cycle	5÷100%
Treatment timer	30s÷30min

Standard accessories

- operating manual
- set of electrodes, viscose pads,
fixing bands, cables
- door warning labels

Optional accessories

- Various electrodes and accessories for electrotherapy
([see p. 13](#))
- Ultrasound heads ([see p. 21-23](#))
 - **SU-1**: Surface of 1.3cm² frequency 1MHz or 3.3MHz
 - **SU-5**: Surface of 5cm² frequency 1MHz or 3.3MHz
 - **SUP-6**: Surface of 6x3cm² frequency 1MHz or 3.3MHz
- Laser probes ([see p. 17](#))
 - Single-diode: **S-1N**, **S-2N**, **S-2B**, **S-3N**
 - Cluster: **SP-1B**, **SP-2B**, **SP-3**
- Laser protective eyewear
- Carrying bag for device and accessories



Lasertronic LT-3

Laser biostimulator



Characteristics

- Large (4.3"), colour touchscreen display
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Modern design of control unit and probes
- Convenient probe holder by the control unit
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Repeat dose feature
- Laser power sensor
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments
- 2 year warranty (including probes)

General data

Power supply	~230V 10%, 50 Hz, 50VA
Electrical protection class	I, B type
Dimensions	335 x 270 x 125mm
Weight of control unit	2.5kg

Laser Therapy

Laser safety class	3B
Duration of laser treatment	1s÷99min

Standard accessories

- operating manual
- door warning labels

Optional accessories

- Laser probes ([see p.17](#))
 - Single-diode: **S-1N, S-2N, S-2B, S-3N**
 - Cluster: **SP-1B, SP-2B, SP-3**
 - Scanner **SK-1** ([see p.18](#))
- Laser protective eyewear
- Carrying bag for device and accessories
- Large stand for cluster laser probes

Probes for laser therapy devices

Easy to use, lightweight and elegant laser probes.



Single diode probes

Probe type	S-1N	S-2N	S-2B	S-3N
Light wavelength	905nm / IR	660nm / R	660nm / R	808nm / IR
Pulse power	50W	40mW	80mW	400mW
Mean power	50mW	40mW	80mW	400mW
Power adjustment range	(1÷50)mW	(1÷40)mW	(1÷80) mW	(1÷400)mW
Frequency	5÷5000Hz	5÷9999Hz	5÷9999Hz	5÷9999Hz
Single pulse energy	10μJ	-	-	-
Pulse width	200ns	-	-	-



Cluster probes

Probe type	SP-1B	SP-2B		SP-3
Light wavelength	660nm	660nm	808nm	808nm
Number of diodes	9/R	5/R	4/IR	9/IR
Single diode power	80mW	80mW	160mW	160mW
Total continuous power	720mW	1040mW		1440mW
Output power	(10÷720)mW	(10÷1040)mW		(10÷1440)mW
Frequency range	5÷9999Hz	5÷9999Hz		5÷9999Hz
Treatment area	50cm²	50cm²		50cm²

Cluster probes are designed for treatment of larger areas.
Cluster probes are equipped with a small stand for convenience.

*Optional big holder
for cluster probes*

Laser scanner SK-1

Therapy of larger areas

**SK-1 is intended to work with
Lasertronic LT-3 biostimulator**

Characteristics

- Modern laser scanner
- Infrared laser IR 808nm / 400mW (output power)
- Red laser R 660nm / 80mW (output power)
- Reduction of energy loss due to reflections results in increased effective treatment dose
- Uniform exposure of the entire treatment area (reduction of overexposures)
- Applicator controlled only by Lasertronic LT-3 device

Treatment area shapes

- Uniform rectangular surface
- Uniform elliptical surface
- Uniform line scanning
- Curves within rectangle boundaries
- Custom shape (User defined)

Features

- Automatic distance measurement and calculation of treatment area
- Automatic stabilization of treatment area
- Smooth adjustment of head position with automatic stabilization
- Quick setting of treatment area with dial knobs
- Wide range of treatment area shapes to choose from
- Custom treatment area shape
- Mobile stand for scanner with device shelf



Specifications

Total output power	480mW
IR source	808nm / 400mW
R source	660nm / 80mW
Arm adjustment range	60cm to 140cm
Treatment area (measured at 50cm above the patient)	400cm ²
Automatic distance measurement	5-100cm
Exposure uniformity deviation (in uniform shapes)	± 10%

Solatronic SL-3

Two therapies in one device

Characteristics

- Modern ultrasound and laser therapy device
- Two simultaneous treatments option
- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Ergonomic and lightweight probes
- Convenient probe holder by the control unit
- Modern design of control unit and probes
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments



General data

Power supply	~230V 10%, 50Hz, 70VA
Electrical protection class	I, B type
Dimensions	335 x 270 x 125mm
Weight of control unit	2.5kg

Laser Therapy specifications

- Impulse and continuous operation
- Dose repetition function
- Laser power measurement sensor

Laser safety class	3B
Duration of laser treatment	1s÷99min

Ultrasound Therapy

- Continuous and pulse mode
- Double-frequency probes: 1MHz and 3.3MHz in 5cm² or 1cm² size, automatic head with the surface of 6x3cm²
- Water-resistant ultrasound heads
- Sound and visual signals of ultrasound head contact with patient
- Adjustment of touch sensitivity of head

Ultrasound frequency	1MHz or 3.3MHz
Max. continuous power	12.5W
Work mode	continuous or pulsed
Pulse frequency	10÷150Hz
Pulse duty cycle	5÷100%
Treatment timer	30s÷30min

Standard accessories

- therapy gel for ultrasound therapy
- operating manual
- door warning labels

Optional accessories

- Ultrasound heads (see p. 21-23)
 - SU-5: Surface of 5cm² frequency 1MHz or 3.3MHz
 - SU-1: Surface of 1.3cm² frequency 1MHz or 3.3MHz
 - SUP-6: Surface of 6x3cm² frequency 1MHz or 3.3MHz
- Laser probes (see p. 17)
 - Single-diode: S-1N, S-2N, S-2B, S-3N
 - Cluster: SP-1B, SP-2B, SP-3
- Laser protective eyewear
- Carrying bag for device and accessories
- Large stand for cluster laser probes

Sonotronic US-2

Modern ultrasound therapy device

Characteristics

- Colour touchscreen display (4.3")
- User-friendly touchscreen and button controls
- Double-frequency probes:
1MHz and 3.3MHz in 5cm² or 1cm² size,
automatic head with the surface of 6x3cm²
- Continuous and pulse mode
- Ergonomic and lightweight heads
- Convenient head holder by the control unit
- Water-resistant ultrasound heads
- Adjustment of patient contact sensitivity
- Sound and visual signals of contact of the ultrasound head with patient
- Ready to use preset treatment programs for popular treatments
- Easy to store user-defined programs thanks to on-screen keyboard
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments



General data

Duration of treatment	30s÷30min
Power supply	~230V 10%, 50 Hz, 70VA
Electrical protection class	I, B type
Dimensions	335 x 270 x 125mm
Weight of control unit	2.5kg

Ultrasound Therapy

Ultrasound frequency	1MHz or 3.3MHz
Max. continuous power	12.5W
Impulse frequency	10÷150Hz
Work mode	continuous or pulsed
Pulse duty cycle	5÷100%

Standard accessories

- therapy gel for ultrasound therapy
- operating manual

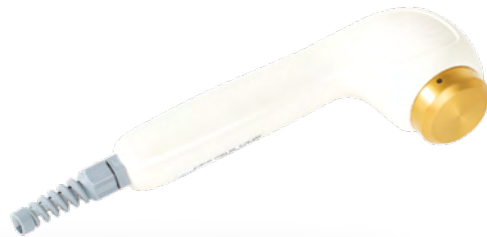
Optional accessories

- Ultrasound heads (see p. 21-23)
 - **SU-1:** Surface of 1.3cm² frequency 1MHz or 3.3MHz
 - **SU-5:** Surface of 5cm² frequency 1MHz or 3.3MHz
 - **SUP-6:** Surface of 6x3cm² frequency 1MHz or 3.3MHz
- Carrying bag for device and accessories
- Holder of treatment head for water treatments

Ultrasound heads



SU-1



SU-5



SUP-6

Technical specifications of ultrasound heads

Ultrasound head	SU-1	SU-5	SUP-6
Active area	1.3cm ²	5cm ²	6 x 3cm ²
Ultrasound frequency	1MHz or 3.3MHz	1MHz or 3.3MHz	1MHz or 3.3MHz
Max. continuous power density	2.5W / cm ²	2.5W / cm ²	2.5W / cm ²
Peak pulse power density	3.0W / cm ²	3.0W / cm ²	2.5W / cm ²

Automatic ultrasonic head



Characteristics of the SUP-6 ultrasonic head

- automatic treatment area sweep
- treatment area $6 \times 3\text{cm}^2$ (18cm^2 in total)
- double frequency head: 1MHz, 3.3MHz (and alternating 1 / 3.3MHz)
- convenient attachment of the head to the patient with velcro strap
- increasing the therapist's comfort of work
- optimal use of the treatment time



Magnetronic MF-24

Multichannel magnetotherapy and laser therapy device

Features

- 5 simultaneous treatments!
- The device features an innovative control system – each applicator has an independent treatment timer. As a result, Magnetronic MF-24 can perform 4 simultaneous independently initiated magnetotherapy treatments (2 treatments per channel) and 1 laser therapy treatment. In total Magnetronic MF-24 features 5 treatment timers.
- 2 independent magnetotherapy channels with separate adjustments
- Each channel can connect 2 applicators
- Independent laser therapy channel for treatments with a laser probe.

User-friendly

- Ready to use preset treatment programs for popular treatments.
- User-defined programs can be stored by the therapist.
- Independent adjustment of all treatment settings.
- Large (5.7"), colour touch screen display.
- Equipped with touch screen and button controls.

Extra features

- Wide magnetic field frequency range: 1Hz÷100Hz
- **MX1** and **MX2** programmes with automatic modulation change
- Lightweight
- Wide range of laser power adjustment up to 1440mW
- Auto detection of connected applicator type



General data

Magnetic field frequency range	1÷100Hz
Magnetic field intensity	0÷20mT (depends on applicator used)
Pulse / break duration	0.5÷8s
Power supply	230V/50Hz/400VA
Electrical protection class	I, B type
Dimensions	6.2kg
Weight of control unit	364 x 335 x 142mm

Magnetic field modulations

- sine, rectangle and triangle, each of them unipolar and bipolar
- MX1 – consecutive shape change at constant frequency
- MX2 – consecutive shape change at variable frequency

Accessories

- Optional: (see p.26-27) various size reel applicators, flat applicators, patient couch or lift for large applicator, applicator and unit trolleys, laser probes, laser protective eyewear.

Available laser probes (see p.17)

- single-diode **S-1N, S-2N, S-2B, S-3N**
- cluster **SP-1B, SP-2B, SP-3**

Magnetronic MF-12

Modern magnetotherapy device



Features

- 2 independent treatments. The device features an innovative control system – each applicator has an independent treatment timer and can be independently initiated. As a result, Magnetronic MF-12 can perform 2 independent magnetotherapy treatments with the same treatment settings.
- Connections for two applicators

User-friendly

- Ready to use preset treatment programs for popular treatments.
- User-defined programs can be stored by the therapist.
- Independent adjustment of all treatment settings.
- Colour touch screen display (4.3")
- Equipped with touch screen and button controls.

Extra features

- Wide magnetic field frequency range (1Hz÷100Hz)
- **MX1** and **MX2** programmes with automatic modulation change
- Auto detection of connected applicator type
- Lightweight

General data

Magnetic field frequency range	1÷100Hz
Magnetic field intensity	0÷20mT (depends on applicator used)
Pulse / break duration	0.5÷8s
Power supply	230V/50Hz/200VA
Electrical protection class	I, B type
Dimensions	4.4kg
Weight of control unit	335 x 270 x 125mm

Magnetic field modulations

- sine, rectangle and triangle, each of them unipolar and bipolar
- **MX1** – consecutive shape change at constant frequency
- **MX2** – consecutive shape change at variable frequency

Accessories

- Optional (see p.26-27): various size reel applicators, flat applicators, patient couch or lift for large applicator, applicator and unit trolleys.

Accessories for Magnetotherapy

Magnetronic products are designed for low frequency magnetic field pulse therapy.



*Applicator
trolley S-315N*



*Applicator
trolley S-200N*



Applicator AS-200K

Applicator AS-315K

Applicator AS-600K



Couch L-6 (green)



Applicator AP-100



Applicator AS-200N

Applicator AS-315N

Applicator AS-600N



Double applicator APP-100



Flat applicator AP-2D
(size: 44x70cm)



Flat applicator AP-1D
(size: 32x44cm)

Magnetronic MF-2

Portable Magnetotherapy

Characteristic

- Modern device for two-channel electrotherapy
- 2 independent magnetotherapy channels with separate treatment settings
- Colour touch screen display (4.3")
- User-friendly touchscreen and button controls
- Ready to use preset treatment programs for popular treatments
- User-defined programs can be stored by the therapist
- Independent adjustment of treatment settings
- Fan control feature to minimize noise and power consumption
- Treatment duration and number of performed treatments counter
- Can be used as portable for home treatments
- Wide magnetic field frequency range (1Hz-150 Hz)
- Choice of applicators including various size flat applicators
- Magnetic field shapes: sine, rectangle and triangle, each of them unipolar or bipolar,
 - **MX1** – consecutive shape change at constant frequency, or
 - **MX2** – consecutive shape change at variable frequency

AS-204 reel applicator

Provides easy treatment of limbs and is much lighter than other available reel applicators.



General data

Power supply	~230V 10%, 50Hz, 70VA
Electrical protection class	I, B type
Dimensions	335 x 270 x 125mm
Weight of control unit	2.5kg

Magnetotherapy technical data

Magnetic field frequency range	1-150 Hz
Magnetic field intensity	0÷8 mT (depends on applicator used)
Pulse / break duration	0.5÷8s
Work mode	continuous or interrupted
Treatment timer	1÷99min

Standard accessories

- Operating manual

Optional accessories

- Magnetotherapy specialized applicators (see p. 29)
- Carrying bag for device and accessories

Accessories for portable magnetotherapy

Accessories for Magnetronic MF-2, Multitronic MT-8



Flat applicator AP-2
(size: 44x70cm)



Flat applicator AP-1
(size: 32x44cm)



Reel applicator AS-204
(size: 20cm diameter)



Flexible applicator APE-1
(size: 17x25cm)

CARBObed

Device for dry CO₂ baths, a carbonic acid bath therapy

Advantages of dry CO₂ baths compared to water baths

- Patient can stay in his/her clothes
- Significantly lower gas usage
- Shorter preparation time
(no need to fill in and empty the bath tub)
- Easy to install (no need to provide water supply or sewage disposal system)
- More effective therapy in selected ailments

Characteristics

- Automated treatment procedure
- Quick and effective sealing of the treatment chamber
- Automatic carbon dioxide refill and circulation
- High and stable gas concentration on the treated body part
- Automatic carbon dioxide moisturizing and heating increases treatment effectiveness immediately from the beginning
- Adjustable treatment temperature 30÷40°C
- Sound signal at the end of treatment
- Controlled carbon dioxide disposal after treatment
- Carbon dioxide consumption: maximum 18l/min (practical efficiency: ca. 70 treatments with 26kg gas cylinder)
- Mobile construction
- Adjustable backrest angle
- Dimensions (length x width x height) 2150 x 700 x 980mm
- Couch height: 590mm
- Power supply 230V / 50Hz / 800W



Equipment trolleys

We offer a series of modern equipment trolleys to suit our equipment. They are good-looking, easy to clean, ergonomic, equipped with large, comfortable wheels and brakes making them easy to manoeuvre.

*Applicator trolley
S-315N*



*Applicator
trolley S-200N*



Magnetotherapy applicator trolleys

Our solid built applicator trolleys help patients keep the body parts in the applicator during treatment. Each trolley is equipped with a comfortable support to place the patient's limb. With our applicator trolleys, you can use heavy applicators easy and comfortably.

Equipment trolleys

We offer single- and double-shelf trolleys.

Single-shelf trolleys have one, top shelf with a comfortable handle to manoeuvre it and to place the therapy cables.

Double-shelf trolleys can be used to operate two devices. The lower shelf can be mounted at an adjustable height and angle, allowing for treatment of two patients with the same trolley or simply making the access to the device more comfortable. Shelves have specially shaped edges to prevent the equipment from being accidentally knocked off.



SM-1



SM-2





Elektronika i Elektromedycyna Sp.J.
Zaciszna 2, 05-402 Otwock, Poland

tel./fax 0048 22 779 42 84
tel. 0048 22 710 08 39

office@eie.com.pl
www.eie.com.pl

