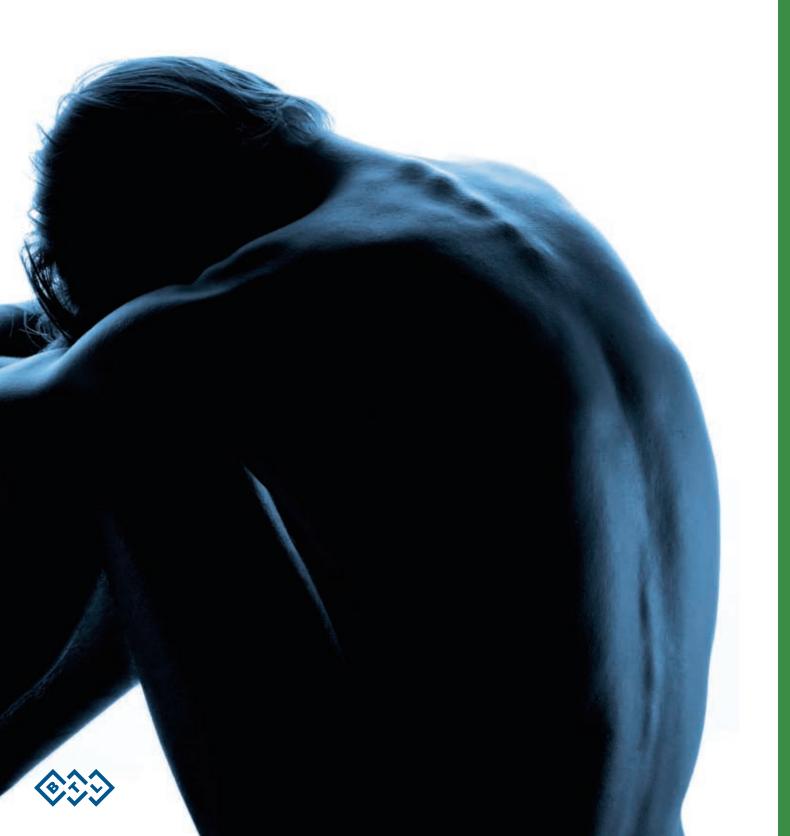
PHYSIOTHERAPY





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THE BTL UNIQUE MODULAR SYSTEM

The BTL-5000 physiotherapy series is tailored to fit all your current and future therapy needs. Thanks to its modularity and a wide number of possible configurations, the BTL-5000 unit can be supplied exactly upon your request - fitting both therapy needs and current budget possibilities. Moreover, your unit can be additionally upgraded anytime when needed.

The BTL Unique Modular System offers:

- Combination of up to four therapies in a single unit: Electrotherapy + Ultrasound therapy + Laser therapy + Magnetotherapy
- ♦ The best parameters that you can find on today's physiotherapy market
- Savings on your initial investment and saving on your time and office space
- Upgrade option of your unit at later stage
- Patient comfort; all therapies are applied in one place





TOUCH SCREEN

The touch-controlled display with pen pointer considerably simplifies the use of the unit. A vertically positioned case of the unit enables you to see the information on the screen clearly from different positions. In addition, the display brightness can be adjusted to fit the light conditions in the office. The information displayed on the screen will guide you throughout the whole therapy. Simply adjust the parameters by pressing the touch screen buttons and turn the main knob to set the intensity.



LARGE GRAPHIC DISPLAY

The large graphic display clearly shows therapy parameters. Even the most advanced therapy currents and therapy methods are easily displayed together with their therapy effects and suggestions.



6

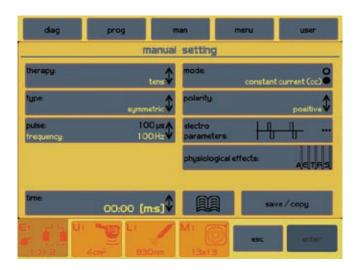


TWO TYPES OF TOUCH SCREEN DISPLAY

The BTL-5000 units are supplied in two modifications of front display:

5.7" colour touch screen

8.4" colour TFT touch screen





PRE-PROGRAMMED PROTOCOLS

Save your time by using the pre-programming of the BTL-5000 units. Based on detailed research and practical use of the units, the well-organised pre-programmed therapy protocols will give you recommendations for treating various conditions and will guide you throughout the therapy. Selecting a diagnosis from the list of alphabetically organised protocols or selecting a programme will make an easy and efficient start of the therapy.



BTL THERAPEUTIC ENCYCLOPAEDIA

Colourful therapeutic encyclopaedia with descriptions of all therapies, built-in diagnoses, therapy procedures, and anatomical images with positioning of therapy applicators. For more information see pages 8–9.



USER-DEFINED PROTOCOLS

The large memory capacity allows you to store 150 (500) user-defined therapy protocols. Moreover, the last 20 treatments can be anytime recalled.



PATIENT DATABASE

Add the names of your patients and other relevant information into the unit's internal memory and connect the patient data with pre-programmed or your own protocols. When your patients see you again simply recall their name and apply the pre-set therapy.



IDENTIFICATION OF ACCESSORIES AND ACCESSORIES MAINTENANCE CHECK

If several accessories are attached to your unit at the same time, you can easily recognize the accessory required for a specific treatment. Select a treatment on the display (electrotherapy, ultrasound, laser, or magnetotherapy) and the control light on the corresponding accessory (electrotherapy cable, ultrasound head or magnetotherapy applicator) will switch on to indicate that this accessory is active and should be used. Anytime you can run the test of accessories. The functionality and quality of the connected applicators and cables will be checked and reported.



COLOUR FRAME OPTION

Select a colour of the unit that suits best your office design and your personal taste. The BTL-5000 series offers 4 main colour modifications of front panels: dark blue, light blue, yellow and orange.



UNIT ADJUSTMENTS

Sound and volume adjustment, display colour and brightness setting, screen saver, auto switch-off, initial security code and many other features can be adjusted as desired.



MULTILINGUAL UNIT

The BTL-5000 units can be operated in different languages (English, French, Spanish, Russian, German, Portuguese, etc.).



OUTPUTS

Up to 6 outputs are available on the BTL-5000 units.

General technical specifications of the BTL-5000 series

Mains supply	230 V/50-60 Hz, 115V/50-60 Hz
Dimensions	230 × 390 × 260 mm
Weight (less accessories)	4.7-5.3 kg
Class according to MDD 93/42/EEC	Ilb
Equipment protection class	II (according to IEC 536)



BTL THERAPEUTIC ENCYCLOPAEDIA

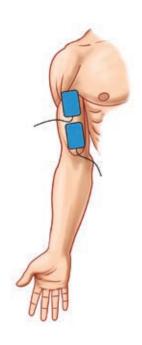
Based on many years of medical research, the Encyclopaedia is ready to serve you anytime you need help. It has been designed for users to easily and correctly apply knowledge of modern physical therapy in their practice. See descriptions of all therapies, built-in diagnoses, therapy procedures, and anatomical images with positioning of therapy applicators. Every pre-programmed protocol can be linked directly to its description in the Encyclopaedia.

EXAMPLES FROM THE ENCYCLOPAEDIA

ELECTROTHERAPY

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	ΥI		-	٦	_	u	11/	

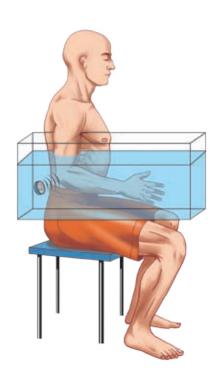
Programme:	E-1663
Therapy parameters:	
current:	TENS
type:	symmetric
pulse:	100us
pulse frequency:	100Hz
modulation:	trapezoid surges
Position of electrodes:	electrodes 4x6cm above the affected muscle
Treatment time:	10-20min, step 1min
Frequency of treatments:	every other day
Number of treatments:	8
Intensity:	up to threshold motor level
Effects:	anlgetic, vasodilatation



ULTRASOUND

ARTHRITIS RHEUMATOIDES - SUBAQUALIS

Program:	U-0002 arthritis rheumatoides - subaqualis
Therapy parameters*	
carrier frequency:	1MHz
duty factor:	1:2 (50%)
modulation frequency:	100Hz
Recommended applicators:	ultrasound head, 4 cm ²
Length of application:	5 minutes
Frequency of treatments:	2 - 3x per week
Number of treatments:	6 - 10
Intensity:	1.0 - 2.0 W/cm2, step 0.1 W/cm ²
Effects:	analgetic, antiedematous, myorelaxation
Note: Subaqual application. Di 10 - 12cm. Water temperature	stance of the ultrasound head from the affected area: e: 36°C.



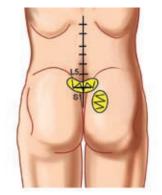
LASER

SACRALGIA

Program: L-0812 program: L-0812 sacralgia

Therapy parameters*	
dosage:	16 J/cm ²
power:	by probe
irradiated area:	1 cm ²
frequency:	10 Hz
duty factor (DF):	80 %
Recommended accessories:	infrared laser probe
Frequency of treatments:	3x per week
Number of treatments:	12 or until problems subside
Effects:	analgesic, vasodilatation, myorelaxation

 $\label{Note: Irradiate lumbo-sacral trocheal joints, from upper to lower spine, and the same contralaterally to the sacro-iliac joint.}$

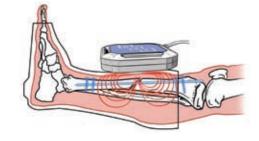


MAGNETOTHERAPY

FRACTURE - OSTEOSYNTHESIS

Program:	M-0042 osteosynthesis – per saltum post operation	
Therapy parameters*		
current:	continuous magnetic field	
intensity of mag. field:	according to applicator	
Recommended applicators:	solenoid 30, disc	
Length of application:	60 min	
Frequency of treatments:	daily	
Number of treatments:	15 – 20	
Position of applicator:	suitable applicator directly at the operated area	
Effects:	antiedematous, analgesic, vasodilatation, antiphlogistic, support of healing	

Note: For in-patients apply 2x a day. The effectiveness of therapy can be increased by application of SMF at the first five therapies. The patient is relieved of pain, visible rtg changes appear after a longer time. Along with magnetotherapy it is recommended to administer preparations to support metabolism of bone tissue.



SPASM

M-0054
series of magnetic pulses
120mT/10
rectangular (protracted) pulses
solenoid 30cm, solenoid 60cm, double disk
30min
daily
long-term treatment 10-14 weeks - according to pain relief
solenoid 30cm, 60cm, double disk - for local spasms of limb muscles, in the area of discomfort
analgetic, myorelaxation, improvement of microcirulation



THE ELECTROTHERAPY BTL-5000 PULS

The BTL-5000 Puls are the top-end electrotherapy devices available on the market. The units generate full range of low and medium frequency waveforms and their modifications, and they are equipped with all features and options that reflect the latest in electrotherapy.

The BTL-5000 Puls series comes in several modifications, differing in the number of outputs and waveform types:

BTL-5610 Single – 1-channel electrotherapy with most important low and medium frequency waveforms
BTL-5620 Double – 2-channel electrotherapy, an advanced electrotherapy unit with 2 outputs for
simultaneous treatment of two patients and for application of 4-pole interference

BTL-5625 Double Plus – 2-channel electrotherapy, similar in its performance to the BTL-5620 Double, the BTL-5625 Double Plus features, in addition, electrodiagnostics and an extended number of waveforms

BTL-5640 Quad – 4-channel electrotherapy for simultaneous treatment of 2 patients and for simultaneous application of 4-pole interference on 2 patients

BTL-5645 Quad Plus – 4-channel electrotherapy, similar in its performance to the BTL-5640 Quad, features, in addition, electrodiagnostics and an extended number of waveforms

Features and benefits of the BTL-5000 Electrotherapy

- ♦ Full range of low and medium frequency waveforms and their modifications (see page 12)
- +/- Easy change of electrodes' polarity
- Constant Current and Constant Voltage modes CC/CV
- Programmable sequences
- ♦ Electrodiagnostics: I/t curves, motoric point, rheobasis and chronaxie, accommodation coefficient
- Test of quality of electrodes and patient cables
- ♦ BTL Unique Modular System™ later upgrades possible
- ♦ Combination with ultrasound, laser and/or magnetotherapy modules
- Connection to the BTL Vac vacuum unit
- Cart (option)

Available upgrades:

HVT Module – special generator designed for electrotherapy specialists using the High Voltage Therapy. For more information see page 12. Ordering No. P5600.017V102

Module Electrotherapy Plus – expand your therapy possibilities by the module Electrotherapy Plus. The module includes SW for electrodiagnostics and additional currents: Isoplanar vector field, dipole vector (manual + auto), interrupted pulses, Leduc current, H-wave, microcurrents, medium frequency surges and spastic currents. Ordering No. P5000.004V100

General features of the BTL-5000 series







two types of display





therapy protocols



encyclopaedia



user-defined protocols

large graphic display



patient database



accessories check

colour frame option



unit adjustments



multilingual unit



6 outpu







THE VACUUM UNIT BTL VAC

Combine any BTL-5000 Puls, BTL-5000 Combi, BTL-4000 Puls and BTL-4000 Combi unit with the vacuum unit BTL Vac to apply electrotherapy currents by means of suction cup electrodes. Adjustable vacuum pressure ensures simple and convenient attachment of patient electrodes, especially on the parts of body hard to reach with flat rubber electrodes. Moreover, the pulse mode provides mechanical massage of the tissue, improves body metabolism and increases blood supply.

The BTL Vac has 2 independent outputs and operates in both pulse and continuous mode. The unit has 4 pre-defined programmes to combine various pulse frequencies.



Features and benefits of the BTL Vac

- ♦ Compact design
- 2 independent outputs
- Continuous and pulse mode
- 4 user-defined programmes for pulsation + 1 special programme for pulsation dependent on electrotherapy modulation
- Pulse frequency 15, 30, 45, and 60 pulses per minute
- Professionally designed suction cup electrodes with biocompatible foam sponges that prevent skin irritation
- Quiet and easy operation

Technical specifications

BTL Vac	
PVAC.001V100	
2	
Continuous and pulse	
15, 30, 45 and 60 pulses/minute	
5	
320 × 115 × 305	
6.8 kg	
230 V/50-60 Hz, 115 V/50-60 Hz	
suction cup electrodes 65 mm (4 \times), sponges 65mm (4 \times), patient cables (4 \times), connecting cables (2 \times) power cord, CD with user manual	

Optional accessories: see page 56

PRE-PROGRAMMED THERAPY PROTOCOLS IN THE BTL-5000 PULS

Rehabilitation

achillodynia, arteritis (lower limb), arteritis (upper limb), arthritis rheumatica, arthrosis acuta, arthrosis chronica, arthrosis oedematosus, claudicatio intermitens, distortio, contusio - consolidatio, dolor postoperativa, edema reduction, epicondylitis (bilateralis), epicondylitis radialis (ulnaris), haematoma - peracute, humeroscapular periarthritis, hypertonia musculorum, hypotonia musculorum "phasicum", hypotonia musculorum "tonicum", hypotonia musculorum postoperativa, lumbalgia (low back pain), lymphoedema, m. Bürger, acrocyanosis, neuralgia, m. Reynaud, musculus abbreviatus, musculus, myalgia, obstipatio atonica, obstipatio spastica, scoliosis, spasticitis, spondylarthritis ancylopoetica, tendovaginitis chronica, tendovaginitis subacuta, tonisatio musculorum "phasicum", tonisatio musculorum "tonicum", trigger points - deep, trigger points - superficial, trismus

Neurology

acrocyanosis, Dupuytren's contractura, herpes zoster – neuralgia, hypertonia musculorum, hypotonia musculorum "phasicum", hypotonia musculorum "tonicum", m. bürger, acrocyanosis, neuralgia, musculus abbreviatus, myalgia, neuralgia, neuralgia n. occipitalis major, neuropathia (acrohypaesthesia), neuropathia (acroparaesthesia, acrodysaesthesia), spasticitis, tonisatio musculorum "phasicum", tonisatio musculorum "tonicum", trigger points – deep, trigger points – superficial, trismus, vesica urinaria atonica

Dermatology

cheloidum, iodine iontophoresis (for keloid scar), potassium iontophoresis (for keloid scar), prurigo, pruritus, urtica, scar revision, hypertrophic/keloid, scar revision – atrophic acne scar

Gyneacology

dysmenorrhoea, incontinentia mixta, incontinentia stress, incontinentia urgentes, incontinentia urinae, vesica urinaria atonica

Orthopaedics

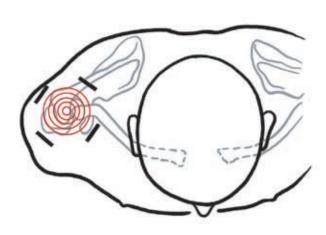
achillodynia, algodystrophic syndrome – lower limb, algodystrophic syndrome – upper limb, arthritis rheumatica, arthrosis acuta, arthrosis chrónica, arthrosis oedematosus, bursitis acuta, distortio, contusio – peracut, distortio, contusio – subacuta, dolor postoperativa, edema reduction, epicondylitis (bilateralis), epicondylitis radialis (ulnaris), haemarthrosis, haematoma – peracute, humeroscapular periarthritis, hypotonia musculorum postoperativa, lumbalgia (low back pain), m. osgood-schlatter, musculus scissus, myalgia, scoliosis, spondylarthritis ancylopoetica, tendovaginitis chronica, tendovaginitis subacuta

Sport medicine

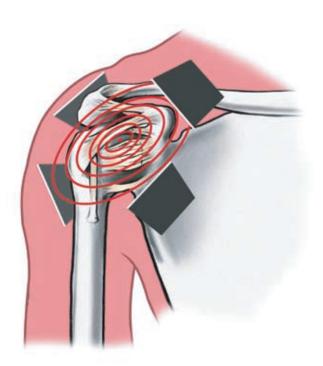
achillodynia, bursitis acuta, distortio, contusio – consolidatio, dolor postoperativa, edema reduction, epicondylitis (bilateralis), epicondylitis radialis (ulnaris), haemarthrosis, haematoma – peracute, hypertonia musculorum, hypotonia musculorum "phasicum", hypotonia musculorum "tonicum", hypotonia musculorum postoperativa, lumbalgia (low back pain), musculus abbreviatus, musculus scissus, myalgia, tendovaginitis chronica, tendovaginitis subacuta, trigger points – deep, trigger points – superficial

Wellness

achillodynia, bursitis, haematoma, hypertonia musculorum, hypotonia musculorum phasicum, musculus abbreviatus, myalgia, lymphoedema, oedema, dysmenorrhoea







FULL RANGE OF LOW AND MEDIUM FREQUENCY WAVEFORMS AND THEIR **MODIFICATIONS**

Galvanic current (Iontophoresis) - type: continual, interrupted 8000 Hz with duty factor 95%

Diadynamic currents - type: DF, MF, CP, LP, RS, CP-ISO, base: 0-0.5-1-2-5-10-20%, basic frequency: 50 or 60 Hz, interruption of pulses: 8000 Hz, duty factor 95%

Іп п

Traebert, Ultra-Reiz 2-5

Faradic, Neofaradic currents

Russian stimulation (Kotz) - carrier frequency: 2500-10000 Hz, pulse frequency: 40-150 Hz, duty cycle: from 1:1-1:8

Stimulaton pulses (for stimulation according to electrodiagnostics) - type: rectangular, triangular (monophasic), pulse: 0.1-1000 ms, pause: 0.5-10 s

Rectangular pulses



Triangular pulses, exponential pulses, and exponential pulses with

Combined pulses - type: monophasic, symmetric, alternating; asymmetric (combined pulses), pulse: 0.2-1000 ms*, pause: 0.1-10000 ms*, frequency: 0.1-1000 Hz* (* parameters depend on waveform and form of pulse)



TENS - type: symmetric, alternating, asymmetric, pulse: 10-500 μs, pause: 0.15-2500 ms, frequency: 0.2-1000 Hz

Interrupted pulses – type: rectangular, triangular, exponential (monophasic, symmetric, alternating), frequency of interruption: 8000 Hz, duty factor 95%, pulse: 1–30 ms, pause: 1–60 ms*, frequency: 11.1-500 Hz* (* parameters depend on form of pulse)

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Leduc current - type: monophasic, pulse: 1 ms, pause: 9 ms, frequency: 100 Hz

Microcurrents - type: rectangular, triangular, exponential (monophasic, symmetric, alternating), combined (only in current mode), pulse: 0.2-1000 ms*, pause: 0.1-10000 ms*, frequency: 0.1-1000 Hz* (* parameters depend on forms of pulses)

100000

Medium frequency waveforms (with amplitude modulation) - carrier frequency: 2500-10000 Hz, pulse: 0.1-50 ms, pulse frequency: 9.8-1000 Hz

Spastic stimulation (according to Hufschmidt) - pulse: 0.1-25 ms, delay between channels: 10-3000 ms, frequency: 0.1-50 Hz (according to pre-set pulse length and delay)

K K

High Voltage Therapy (HVT) - type: single pike, double pike, triple pike, symmetric, alternating (only in current mode), pulse: 20 μs (single pike, symmetric, alternating), 30 µs (double pike), 40 µs (triple pike), frequency: 0.1-500 Hz.

Make your electrotherapy unit even more powerful with the High Voltage Therapy. This pulsed waveform with very short impulses, low intensity and higher voltage has good myorelaxation and analgesic effects, and it is often indicated for hypertonic muscles and reflexive muscle changes.



2-pole interference, 4-pole interference, isoplanar field, Dipole vector - carrier frequency: 3600-10000 Hz, AMF: 0-200 Hz, spectrum: 0-200 Hz, isoplanar field rotation: 0.5-70 s, dipole rotation: from 3 cycles per sec to 1 cycle per 30 secs (auto rotation).

Isoplanar field - This special form of 4-pole interference enables to reach a 100% modulation depth in all positions. The placing of electrodes is much easier - they do not need to form a perfect cross

Dipole vector field - The original shape of 4-pole interference is changed to a "dipole" line, on which the depth of modulation reaches 100% while 0% in all other directions. The manual or automatic rotation enables an extremely precise direction of electrotherapy effect into the treated tissue

H-waves - type: symmetric, pulse: 2 × 5.6 ms, pause: 0.22-10000 ms, frequency: 0.1-87.7 Hz.

This bipolar waveform (with both positive and negative elements) uses "low" (2 Hz) frequency for muscle stimulation and "high" (60 Hz) frequency for effective pain control. The increase in blood and lymph drainage accelerates removal of toxins and reduces oedema ("low" frequency), whereas the application of "high" frequency for pain management is usually well tolerated even by sensitive patients.

Modulation - constant frequency, random frequency: ± 30%

burst - number of pulses in burst: 3-10, burst, frequency: 0.1-100 Hz (according to pulse length and frequency)

sinusoidal surge - surge length: 0.15-35 s, pause length: 0.02-70 s

trapezoidal surge - surge rise and fall: 1-35 s, stimulation time, pause, between surges: 1-35 s

symmetric surge - sweep time: 1-35 s, contour: 1-99%

The electrodiagnostics (BTL-5625, 5635, 5640, 5660, 4640)

Measuring of I/t curves in user-defined number of points Up to 20 free program positions for I/t curve storing Determination of the motor point Calculation of rheobasis and chronaxie Measuring of the accommodation coefficient

CC/CV - Whereas constant current is suitable for electrodes that are firmly connected to the patient's body, the use of the current voltage mode is particularly recommended when the therapist moves with the electrode, such as when using the point electrode. It is also useful for motor stimulation of muscles and combined electro/ultrasound therapy

BTL-5000 ELECTROTHERAPY UNITS OVERVIEW

	BTL-5610 Single	BTL-5620 Double	BTL-5625 Double Plus	BTL-5640 Quad	BTL-5645 Quad Plus
Ordering No. (with 5.7" display) (with 8.4" display)		P5620.101V100 P5620.002V200	P5625.101V100 P5625.002V200	P5640.103V100 P5640.003V200	P5645.103V100 P5645.003V200
Electrotherapy channels	1	2	2	4	4
Free channels for upgrade	3	2	2	2	2
Upgradeable with	E, U, L, M	E, U, L, M	E, U, L, M	U, L, M	U, L, M
Types of currents:					
Galvanic	\$	\$	\$	\$	\$
Diadynamic	\$	\$	\$	\$	\$
Programmable sequences	50	50	50	50	50
Traebert, Ultra-Reiz 2-5	\$	\$	\$	\$	\$
Faradic	\$	\$	\$	\$	\$
Neofaradic	\$	\$	\$	\$	\$
Russian stimulation	\$	\$	\$	\$	\$
Stimulation pulses	\$	\$	\$	\$	\$
Rectangular pulses	\$	\$	\$	\$	\$
TENS sym, asym, alt	\$	\$	\$	\$	\$
2-pole interference	\$	\$	\$	\$	\$
4-pole interference	_	\$	\$	\$	\$
Triangular pulses	-	\$	\$	\$	\$
Exponential pulses	-	\$	\$	\$	\$
Exponential pulses with rise	-	\$	\$	\$	\$
Combined pulses	-	\$	\$	\$	\$
Isoplanar field	-	-	\$	-	\$
Dipole vector (manual and auto)) –	-	\$	-	\$
Interrupted pulses	_	-	\$	-	\$
Leduc current	-	-	\$	-	\$
H-wave	-	-	\$	-	\$
Microcurrents	-	-	\$	-	-
Medium frequency surges	-	-	\$	-	\$
Spastic currents	-	-	\$	-	\$
Electrodiagnostics	-	-	\$	-	\$
High Volt therapy (HVT)	optional	optional	optional	-	-
Standard accessories					
flat rubber electrodes	2×	4×	4×	8×	8×
sponge covers	2×	4×	4×	8×	8×
fixation belts	1×	1×	1×	2×	2×
patient cable	1×	2×	2×	4×	4×
pen pointer	\$	\$	\$	\$	\$
power cord	\$	\$	\$	\$	\$
CD with manual, user guide	\$	\$	\$	\$	\$

E – electrotherapy, U – ultrasound, L – laser, M – magnetotherapy

THE ULTRASOUND THERAPY BTL-5000 SONO

The BTL-5000 Sono ultrasound series has all the features and benefits of advanced ultrasound therapy units. The ergonomically shaped multi-frequency 1 cm² head (for treating smaller areas) and 4 cm² head (for larger surface areas) have contact control and guaranteed shape of ultrasonic field. Both heads are water resistant for subaqual treatment. The touch screen and built-in user guide guarantee an easy operation.

The BTL-5000 Sono comes in two modifications, differing in the number of outputs:

- BTL-5710 Sono, 1-channel ultrasound with 2 outputs for the simultaneous connection of 2 ultrasound heads and the treatment of one patient
- ♦ BTL-5720 Sono, 2-channel ultrasound with 4 outputs (2×2 connected heads) for the independent treatment of two patients at the same time

Features and benefits of the BTL-5000 Sono

- Multifrequency system and multifrequency heads 1 and 3 MHz frequencies are available
- ♦ Continuous and pulse mode 10–150 Hz (adjustable in 10 Hz steps)
- ♦ Duty cycle 6–100% (fine adjustable)
- ♦ High power up to 3 W/cm²
- ♦ Ergonomic heads with visual head identification and visual patient contact indication
- Waterproof heads suitable for subaqual therapy
- Monitoring of patient contact quality on the display, acoustic signalization
- Simultaneous connection of both heads (four heads in case of the BTL-5720)
- ♦ BTL Unique Modular System[™] later upgrades possible
- ♦ Combination therapy ultrasound with electrotherapy, direct input for electrotherapy
- Therapy sequences
- Cart (option)

Combine your ultrasound with electrotherapy, magnetotherapy or laser

You can easily connect your ultrasound unit with any BTL electrotherapy unit for combination therapy. Moreover, you can enjoy the benefits of up to 4 units in 1, adding an electrotherapy module, laser module, magnetotherapy module or all modules to your ultrasound equipment. For more information on Combi line, please refer to the Combi Units section on page 30 and 5 (modular system).

General features of the BTL-5000 series







large graphic display

















colour frame option



unit adjustments



multilingual unit

user-defined protocols



6 outpu





ULTRASOUND HEADS

The BTL ultrasound applicators are supplied either in the size of 1 cm² or 4 cm². The probes are ergonomically shaped, lightweight, waterproof and with built-in visual contact control. Both ultrasound heads employ either 1 MHz or 3 MHz frequency. Due to their simultaneous connection to the unit, they are immediately ready for use. The Beam Nonuniformity Ratio (BNR) is less than 5 to avoid high concentrations of energy at one point.



Model	BTL-5710	BTL-5720
Ordering No. (with 5.7" colour display)	P5710.102V100	P5720.102V100
Ordering No. (with 8.4" colour TFT display)	P5710.004V200	P5720.004V200
Number of independent channels	1	2
Number of heads simultaneously connected	2	4
Modular frequency	10-150 Hz	10-150 Hz
Duty factor	6-100%, in steps of 1%	6-100%, in steps of 1%
Max. output in cont. mode	2 W/cm ²	2 W/cm ²
Max. output in pulse mode	3 W/cm ²	3 W/cm ²
ERA	1 cm ² and 4 cm ² +/-10%	1 cm ² and 4 cm ² +/-10%
Standard accessories:		
large multi-frequency 4cm ² head	1×	2×
ultrasound gel 0.3I	\$	\$
holders for accessories	\$	\$
pen pointer	\$	\$
power cord	\$	\$
CD with manual and user guide	\$	\$

Optional accessories: see page 56

PRE-PROGRAMMED THERAPY PROTOCOLS IN THE BTL-5000 SONO

Rehabilitation

arthritis rheumatoides, arthrosis chronica, arthrosis chronica-inactiva, bursitis acuta, bursitis acuta – superficialis, bursitis chronica, bursitis chronica – superficialis, bursitis subacuta, epicondylitis acuta, epicondylitis chronica, epicondylitis subacuta, haematoma chronica, haematoma subacuta, haematoma subchronica, oedema chronica, oedema subacuta, oedema subchronica, sy. algodystrophicus – sy. Sudeck, tendovaginitis acuta, tendovaginitis subacuta, tendovaginitis chronica, tendinitis chronica, tendinitis acuta, tendinitis subacuta

Gyneacology

adnexitis-post inflammatory changes, craurosis vulvae, endometriosis with adhesive processes of lesser pelvis, endometritis - post inflammatory changes, endometritis - subacute, parametritis - post inflammatory changes, parametritis-subacute, post-childbirth suture of perineum, incision, pruritus vulvae, tubal sterility, pelvialgia, sacralgia (adhesive processes of lesser pelvis),

Orthopaedics

arthrosis chronica, arthritis rheumatoides, bursitis acuta, distorsio acuta, distensio muscularis acuta, distensio muscularis – superficialis, distorisio subacuta, distorsio chronica, spondylarthritis ancylopoetica – m. Bechterevi, myalgia superficial, haematoma chronica, haematoma subacuta, haematoma subchronica, oedema chronica, oedema subacuta, tendinitis chronica, tendinitis acuta, tendinitis subacuta, oedema subchronica, tendinitis acuta

Neurology

myospasm, myospasm – superficial, trigger points – deep, trigger points – superficial, vasoneurosis universalis – m. Raynaud

General practitioner

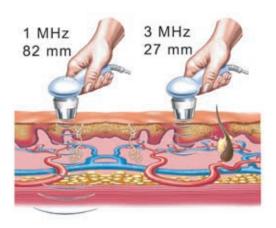
cicatrix acuta, cicatrix subacuta, cicatrix cheloidum, decubitus, haematoma chronica, haematoma subacuta, haematoma subchronica, oedema chronica, oedema subacuta, oedema subchronica, ulcus cruris

Sport medicine

bursitis acuta, bursitis acuta – superficialis, bursitis chronica, bursitis chronica – superficialis, bursitis subacuta, distorsio acuta, distensio muscularis acuta, distensio muscularis – superficialis, distorisio subacuta, distorsio chronica, epicondylitis acuta, haematoma chronica, haematoma subacuta, haematoma chronica, haematoma subacuta, haematoma subchronica, myospasm, myospasm – superficial, trigger points – deep, trigger points – superficial, oedema chronica, oedema subacuta, oedema subchronica, tendovaginitis acuta, tendovaginitis chronica, tendinitis chronica, tendinitis chronica, tendinitis subacuta

Wellness

myospasm, oedema, myalgia, haematoma, bursitis, distorsio, epicondylitis, distensio muscularis



Penetration of ultrasonic field using both 1 and 3 MHz frequencies



Pulsed ultrasonic therapy – antiedematic effect displayed



Continual ultrasonic therapy

- deep thermal effect displayed

Advanced ultrasound therapy procedures available in the BTL-5000 Sono

Subaqual therapy

Subaqual therapy is suitable for uneven surfaces and small areas such as ankle joint, carpometacarpal, metacarpophalangeal and intraphalangeal joints. Thanks to the absence of direct contact of the ultrasound head with the skin, subaqual therapy is extremely suitable for posttraumatic and post surgery conditions. Sample indications: ankle joint distortion, Achilles tendon rupture, acute and chronic arthrosis, acute and chronic tendovaginitis, carpal tunnel syndrome.

Combi therapy (ultrasound and electrotherapy)

Dynamic application uses CV electrotherapy mode.
Ultrasound therapy + low frequency electrotherapy

– myorelaxation of superficial muscular spasms and trigger points

Ultrasound + medium frequency electrotherapy
– influencing reflex changes of deeply located muscles;
in addition, myorelaxation effect can be increased
by temperature rise with the application of continual
ultrasound

Ultrasound + TENS – superficial effects; main indication are reflex changes in cutis and subcutis and reflex changes of superficially located muscle groups

THE LASER THERAPY BTL-5000 LASER

The BTL-5000 Laser presents the best in low level laser therapy treatment (LLLT). Modern touch controlled display considerably simplifies the use of the unit. The built-in BTL therapy and user guide will guide you throughout the whole therapy. Based on detailed research and practical use of the unit, the well organised pre-programmed protocols will give you recommendations for treating various conditions. The unit also includes up to 150 (500) free lots to define your own protocols. A wide variability of therapy parameters offers literally limitless possibilities for LLLT specialists.

The BTL-5000 Laser is supplied in the following model:

BTL-5110 Laser – 1-channel laser with 2 outputs for simultaneous connection of 2 laser probes (clusters) and the treatment of one patient

Features and benefits of the BTL-5000 Laser

- 2 outputs for simultaneous connection of red and infrared probes or laser clusters
- Continuous and pulse laser therapy
- ♦ Frequency modulation 0–10 000Hz
- Duty cycle 10-90% (fine adjustable)
- Automatic calculation of therapy parameters (dose, area, distance and power)
- Wide range of red and infrared laser probes and laser clusters
- Pre-programmed treatment protocols for rehabilitation, orthopaedics, sports medicine, dentistry, gynaecology, dermatology, ENT, paediatrics and general practice (see page 24)
- Laser acupuncture and Nogier frequencies
- Optical attachments for ENT, gynaecology, urology and dentistry
- ♦ BTL Unique Modular System[™] later upgrades possible
- Cart (option)

Model	BTL-5110
Ordering No. (with 5.7" colour display)	P5110.102V100
Ordering No. (with 8.4" colour TFT display)	P5110.004V200
Number of independent channels	1
Number of probes simultaneously connected	2
Modes of operation	continual and pulse
Dose	fine adjustable 0.1–99.0 J/cm²
Frequency	fine adjustable 0.1–10000 Hz
Divergent red probes	685 nm/30 mW, 685 nm/50 mW
Convergent infrared probes	830 nm/50 mW, 830 nm/100 mW, 830 nm/200 mW,
	830 nm/300 mW, 830 nm/400 mW
Red laser cluster	4 × 685 nm/50 mW
Infrared laser clusters	4 × 830 nm/200 mW, 4 × 830 nm/400 mW
Combined laser clusters	4 × 685 nm/50 mW + 4 × 830 nm/200 mW
	$4 \times 685 \text{ nm}/50 \text{ mW} + 4 \times 830 \text{ nm}/400 \text{ mW}$
Laser power	adjustable 20-100%
Therapy area	adjustable 0.1–99.0 cm²
Acupuncture	points detection, visual and acoustic signalization,
	Nogier frequencies
Duty factor	10-90%
Laser class	3B
Standard accessories	pen-pointer, holders for accessories, power cord,
	CD with manual and user guide





General features of the BTL-5000 series

modular system



touch screen



large graphic display



two types of display





therapy protocols

colour frame option



encyclopaedia



unit adjustments



user-defined protocols



multilingual unit



patient database











LASER PROBES

BTL offers a wide range of infrared and red probes. While infrared probes penetrate deeper into the tissue, the red probes are particularly suitable for treatment of superficial areas, such as wounds, scars and haematoma. The invisible infrared probes are supplied with the additional pilot beam. The probes can be additionally supplied with the specially designed holder for comfotable laser application.

Choose your probe:

Probe	Technical parameters	Ordering No.
Red probe - divergent	685 nm/30 mW	L448.000V200
Red probe - divergent	685 nm/50 mW	L448.020V200
Infrared probe - convergent	830 nm/50 mW green navigation	L448.004V200
Infrared probe - convergent	830 nm/100 mW green navigation	L448.005V200
Infrared probe – convergent	830 nm/200 mW green navigation	L448.006V200
Infrared probe - convergent	830 nm/300 mW green navigation	L448.007V200
Infrared probe - convergent	830 nm/400 mW green navigation	L448.010V200





LASER CLUSTERS

Laser clusters present the latest in laser therapy treatment of large areas. The homogenous laser beam treats easily and in short time even the areas of $50~\rm cm^2$. (The area of $50~\rm cm^2$ is treated with the laser beam density of $2~\rm J/cm^2$ for just 4 minutes.)

Besides the standard laser beam, the cluster includes 13 high luminescence LEDs with wavelength of 470 nm suitable for aesthetic applications (acne, hypo-pigmentation, etc). All clusters work in continual as well as pulse mode and they are additionally equipped with blue pilot beam. The laser clusters can be used with both the BTL-4000 and BTL-5000 lasers.

The laser cluster can be additionally supplied with the specially designed holder for comfortable laser application without the therapist assistance. When using a cluster with the holder, the same results as with a laser scanner are guaranteed. The results can be even better thanks to the exceptionally high-powered BTL laser clusters.

Choose your laser cluster:

Cluster	Technical parameters	Ordering number
Red cluster	685 nm/200 mW (4×50) Laser + 470 nm/200 mW (13×16) LED blue	L445.003V100
Infrared cluster	830 mm/800 mW (4×200) Laser + 470 nm/200 mW (13×16) LED blue	L445.001V100
Infrared cluster	830 mm/1600 mW (4×400) Laser + 470 nm/200 mW (13×16) LED blue	L445.002V100
Combined cluster	685 nm/200 mW (4×50) Laser + 830 mm/800 mW (4×200) Laser + 470 nm/200 mW (13×16) LED blue	L445.004V100
Combined cluster	685 nm/200 mW (4×50) Laser + 830 mm/1600 mW (4×400) Laser + 470 nm/200 mW (13×16) LED blue	L445.005V100

Suggested indications:

PRE-PROGRAMMED THERAPY PROTOCOLS IN BTL-5000 LASERS

Dentistry

alveolitis, analgia, angulus infectiosus, aphta (stomatitis aphtosa), caries dentis, cicatrix cheloidum, cicatrix recens, contusio, decubitus, dentitio difficilis-analgia, fractura – analgia, gingivitis, herpes, hyperaemia pulpae, hypersensibilitas dentinalis, morbus temporomandibulare, parodontitis, periodontitis, postextractio, preparatio, pulpa aperta, pulpitis, sanatio postoperativa

Dermatology

acne, alopecie, cicatrix cheloidum, cicatrix recens, combustio, decubitus, dermatitis, dermatitis perioralis, eczema, furunculus, haematoma, herpes simplex, zoster, lichen planus, rosacea, sanatio postoperativa, striae, ulcus cruris

Gynaecology

abscessus glandulae, algomenorrhoea, m. Bartholini, cervicitis acuta, cicatrix cheloidum, cicatrix recens, colpitis acuta, colpitis chronica, conisatio colli uteri, cystitis, dystrophia vulvae, haematoma, herpes genitalis, incontinentia urinae, parametritis, pruritus, sanatio postoperativa, striae, urocystis – irritabilis, vulvitis

ENT

cicatrix recens, furunculus, herpes, otitis media acuta, otitis media chronica, perforatio membranae tympani traumatici, pharyngitis, rhinitis vasomotorica, sanatio postoperativa, sanatio posttrepanationis, sinusitis, tinnitus, tonsillectomia, tonsillitis, tonsillopharyngitis

Rehabilitation

achillodynia, analgesia, arthritis, arthritis rheumatica, arthritis uratica, arthrosis, bursitis, calcar calcanei, contusio, decubitus, distorsio, enthesopathia, epicondylitis, haematoma, chondropathia patelae, induratio penis plastica, ischialgia, migraena, morbus dupuytrene, myorelaxatio, neuralgia, oedema, paresis nervi facialis, sacralgia, spina dorsalis (dorsalgia), spondylarthritis ancylopoetica, sy. canali carpi, sy. Tietz, sy. vertebralis, tendopathia, tendovaginitis

Neurology

analgia, calcar calcanei, enthesopathia, induratio penis plastica, ischialgia, migraena, morbus dupuytrene, neuralgia, neuralgia nervi trigemini, paresis nervi facialis, sacralgia, spina dorsalis (dorsalgia), tinnitus

Orthopaedics

achillodynia, bursitis, calcar calcanei, distorsio epicondylitis, chondropathia patellae, tendopathia, tendovaginitis

Paediatrics

acne, analgia, aphta (stomatitis aphtosa), cicatrix cheloidum, cicatrix recens, combustio, contusio, dermatitis, eczema, furunculus, haematoma, herpes, lichen planus, oedema, pruritus, sanatio postoperativa

General practitioner

acne, analgia, aphta (stomatitis aphtosa), arthritis, cicatrix cheloidum, cicatrix recens, combustio, contusio, decubitus, dermatitis, eczema, furunculus, haematoma, herpes, lichen planus, oedema, pruritus, sanatio postoperativa, striae, ulcus cruris

Sport medicine

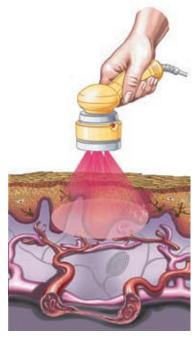
achillodynia, bursitis, contusio, chondropathia patelae, dorsalgia, distorsio, enthesopathia, epicondylitis, haematoma, ischialgia, myorelaxatio, oedema, sacralgia, tendopathia, tendovaginitis

Wellness

myorelaxatio, oedema, analgia, tendopathia, tendovaginitis, bursitis, achillodynia, enthesopatia, haematoma, cicatrix, striae, alopecia, herpes zoster, contusion, combustion



Infrared cluster application



Red cluster application



PHYSIOTHERAPY

THE MAGNETOTHERAPY BTL-5000 MAGNET

Based on many years' experience, we have designed one of the most powerful magnetotherapeutic units on the present-day market. High powered magnetotherapy modules have been integrated to the BTL-5000 to enhance the system's exceptional features.

Although relatively young and less established physiotherapy method, the treatment by pulsed magnetic field (PMF) has been used with good therapeutic results and makes an excellent complementary treatment method in your physiotherapy office. The biggest effects are proven to be pain relief, anti-inflammatory effects and acceleration of healing. The unit is easily operated using the built-in therapy protocols, or the therapy can be manually adjusted. Yet the unit leaves enough room for experienced therapist to create their own therapy sequences and programmes.

The BTL-5000 Magnet comes in two modifications:

- ♦ BTL-5920 Magnet 2-channel magnetotherapy unit
- ♦ BTL-5940 Magnet 4-channel magnetotherapy unit

Features and benefits of the BTL-5000 Magnet

- Pulsed Magnetic Field (PMF), rectangular, triangular, sinusoidal, exponential and continual
- ♦ Combination of pulsed and static magnetic field with adjustable ratio (for acute and anti-inflammatory therapies)
- ♦ Modulation of pulses: burst, sinusoidal surge, trapezoidal surge, symmetric surge
- User-defined magnetic pulses series
- ♦ Focused Magnetic Field (FMF) Technology™
- ♦ Pulse frequency 0–160 Hz
- ♦ Comfortable and lightweight applicators
- Random frequency (Wave swing)
- ♦ BTL Unique Modular System[™] later upgrades possible
- Cart (option)

General features of the BTL-5000 series



modular system





large graphic display



two types of display









encyclopaedia



user-defined protocols



patient database



accessories check

colour frame option



unit adjustments



multilingual unit



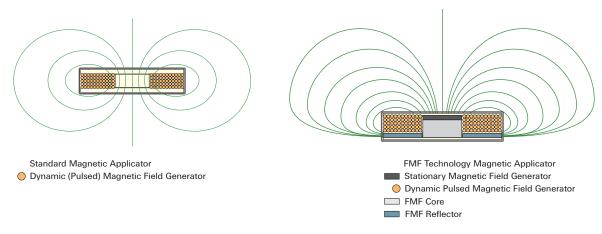






MAGNETOTHERAPY APPLICATORS

Thanks to their unique construction, BTL applicators are exceptionally lightweight and easy to carry around. With the use of FMF (Focused Magnetic Field) the BTL magnetotherapy can easily share common area (couch or chair) with other medical devices and it has no influence on the operator. Upper layer of all applicators is made of soft touch, fully washable and disinfection safe upholstery suitable for long-term use. Applicators are additionally equipped with the stationary magnetic field generator. The combination of dynamic pulsed and stationary magnetic field is suitable for acute stages and anti-inflammatory indications.

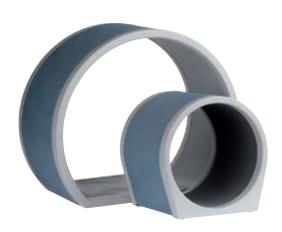


Choose your BTL magnetic applicators with FMF Technology™

Disc - for local applications / Ordering No. P5900.001V100

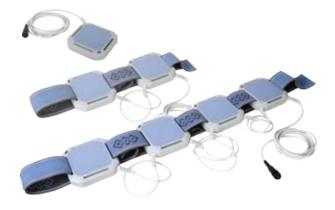
Double disc – for two-side applications / Ordering No. P5900.002V100

Multi disc – for multi applications (pelvic, abdominal, extremity longitudinal application etc.) / Ordering No. P5900.003V100 $\,$



Big Solenoid ø 60 cm – for spine and hips applications / Ordering No. P5900.006V100

Small Solenoid ø 30cm – for extremities applications / Ordering No. P5900.005V100





Linear applicator – for spine and other longitudinal applications / Ordering No. P5900.004V200

THE MAGNETOTHERAPY COUCH BTL-1900 MAGNET

The BTL-1900 Magnet couch has been designed for comfortable application of magnetotherapy for both the patient and therapist. Even patients with low mobility can be treated easily and comfortably.

- ♦ Magnetotherapy couch with sliding solenoid ø 70 cm
- Easy and comfortable solenoid positioning
- ♦ Unique FMF (Focused Magnetic Filed) Technology[™]
- ♦ High powered magnetic field focused to the therapy area with no side-effect on the personnel
- ♦ Foldable couch frame for easy transportation
- Underhead pillow option



Specifications of the BTL-1900 Magnet

Length	200 cm
Width (with solenoid)	74 cm
Height (with solenoid)	110 cm
Weight (with solenoid)	67 kg

Magnetotherapy model	BTL-5920	BTL-5940		
Ordering No. (with 5.7" colour display)	P5920.101V100	P5940.101V100		
Ordering No. (with 8.4" colour TFT display)	P5920.002V200	P5940.002V200		
Number of output channels	2	4		
Maximum pulse induction*	128 mT	128 mT		
Frequency range	0-160 Hz	0–160 Hz		
Wave swing	- 20%	- 20%		
Standard accessories	extension cables for magnetotherapy applicators, pen-pointer, power cord, CD with manual and user guide			

^{*}different for each applicator

Optional accessories: see page 57



PRE-PROGRAMMED THERAPY PROTOCOLS IN THE BTL-5000 MAGNET

Rehabilitation

alloplastica, arthritis rheumatica, arthrodesis, arthrosis, arthrosis chronica, atherosclerosis, coxalgia, coxarthrosis, decubitus, degeneratio spinalis, distensio, distorsio, epicondylitis, fractura, gonalgia, gonarthrosis, ischaemia, metatarsalgia, morbus Perthes, myalgia, osteoporosis, osteosynthesis, paralysis nervi, periartritis humeroscapularis (frozen shoulder), poliomyelitis anterior, polyarthritis iuvenis, pseudoarthrosis, sanatio posttraumatica, sclerosis cerebrospinalis multiplex, spasmus, spondylarthrosis ancylopoetica (morbus Bechterevi), sy. algodystrophicus (sy. Sudeck), sy. canali carpi, sy. cervicobrachialis, sy. cervicocranialis, sy. lumbosacralis, sy. vertebralis, sy. vertebralis, ulcus cruris

Neurology

degeneratio spinalis, distensio, eczema atopicum, enuresis, migraena, myopathia, neurodermatitis, paralysis nervi, sy. canali carpi, trigeminus facialis

Dermatology

alopecie, decubitus, dermatitis atopica, dermatosis pruritus, psoriasis, ulcus cruris

Orthopaedics

alloplastica, arthritis rheumatica, arthrodesis, arthrosis, arthrosis chronica, coxalgia, coxarthrosis, distorsio, epicondylitis, fractura, gonalgia, gonarthrosis, metatarsalgia, osteochondrosis, osteomyelitis acuta, chronica, osteonecrosis aseptica, osteoplastica, osteoporosis, osteosynthesis, ostitis, periartritis humeroscapularis (frozen shoulder), sy. algodystrophicus (sy. Sudeck), tendopathia

Sport medicine

coxalgia, distensio, distorsio, epicondylitis, fractura, gonalgia, metatarsalgia, myalgia, sanatio posttraumatica, spasmus, sy. canali carpi, sy. cervicobrachialis, sy. cervicocranialis, sy. lumbosacralis, sy. vertebralis, sy. vertebralis, tendopathia

Gynaecology

chronical adnexitis, endometriosis, algodysmenorhea

Gastro-enterology

ulcerous disease of stomach and duodenum, pankreatitis, colitis

Dentistry

dolor postextractionem, parodontosis, periostitis

Rheumatology

arthritis rheumatica, ostitis, sanatio posttraumatica – hemorrhage state, sanatio posttraumatica, spondylarthrosis ancylopoetica (morbus Bechterevi)

Alergology & immunology

dermatitis atopica, dermatosis pruritus, eczema atopica, psoriasis, rhinitis allergic

Pneumology

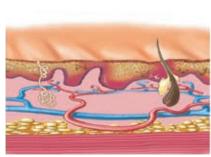
asthma bronchiale, bronchitis chronical, chronical obstructive pulmonal disease

ORL

sinusitis, rhinitis allergic

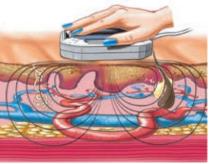
Wellness

myalgia, sy vertebralis, support of the trophic, spasmus, lymphoedema, alopecie, distorsio, tendopathia, gonalgia, coxalgia, epicondylitis

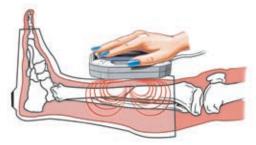




Normal tissue



Magnetotherapy - vasodilatation and myorelaxation effect displayed



Magnetotherapy

- fracture application displayed (trans-plaster application by FMF technology)
- magnetotherapy enhances osteogenesis

THE BTL-5000 BIG CART

With every BTL unit, you can purchase a cart specially designed for BTL products. Its versatile design allows you to conveniently store and use 1 or 2 physiotherapy units and a vacuum unit. The cart includes a range of accessory trays and baskets. Four well-built and steady castors ensure easy movement of the unit in the office or in hospital wards. Ordering No. P5001.008V100 (BTL-5000 and BTL Vac), P5001.010V100 (version with drawer).

THE BTL-5000 & BTL-4000 CART

If you are looking for something more compact you may order a smaller sized cart specially designed for out-patient clinics. Ordering No. P5002.009V100 (for BTL-5000), P5002.012V100 (for BTL-4000).





BTL-5000 & BTL-4000 cart

Specifications of the BTL carts	BTL-5000 big cart	BTL-5000 & BTL-4000 cart		
Dimensions (L × H × W)	69 × 95 × 55 cm	56 × 95 × 55 cm		
Weight	31 kg	20 kg		



THE BTL-5000 COMBI

The BTL-5000 Combi offers:

Electrotherapy + Ultrasound therapy + Laser therapy + Magnetotherapy

All 4 treatments can be built in one unit and 2 different therapies can be operated independently and simultaneously. Top parameters of particular therapies are the best you can find on the present-day physiotherapy market. This unique combination brings you outstanding features, such as patient comfort (all therapies and therapy combinations are applied from one place), saving on your office space, time and initial investment as well as later cost effective expansion of therapy options. For overview of most common configurations see page 33.



The particular therapy modules built in the BTL-5000 Combi unit have all features of single therapy units described in previous chapters:

Electrotherapy with all types of low and medium frequency waveforms (see page 10)

Multifrequency ultrasound system and heads (1 and 3 MHz) with contact control (see page 16)

Advanced laser therapy (LLLT) unit with high powered red and infrared probes and clusters (see page 20)

Powerful magnetotherapy with 6 types of applicators (see page 24)

General features of the BTL-5000 series





touch screen



large graphic display



two types of display





therapy protocols



encyclopaedia



unit adjustments



user-defined protocols



multilingual unit



patient database



accessories check

6 outputs





colour frame option



THE MOST POPULAR BTL-5000 COMBI UNITS

BTL-5825 S COMBI

- Electrotherapy with two independent channels
- Multifrequency ultrasound with visual & acoustic contact control



BTL-5825 SL COMBI

- Electrotherapy with two independent channels
- ♦ Multifrequency ultrasound with visual & acoustic contact control
- Laser with a choice of powerful laser probes and laser clusters



BTL-5818 SLM COMBI

- Electrotherapy with a full range of waveforms
- 4-pole interferential therapy
- ♦ Multifrequency ultrasound with visual & acoustic contact control
- Laser with a choice of powerful laser probes and laser clusters
- ♦ Magnetotherapy with FMF (Focused Magnetic Field) Technology™



BTL-5825 M2 COMBI

- Electrotherapy with two independent channels
- ♦ 2-channel magnetotherapy with FMF (Focused Magnetic Field) TechnologyTM



OVERVIEW OF THE BTL-5000 MOST COMMON MODELS

		Electrotherapy channels	4-pole electrotherapy channels	Ultrasound therapy channels	Laser therapy channels	Magnetotherapy channels	All therapeutic channels	Ordering No. 5.7" colour unit	Ordering No. 8.4" colour TFT unit	Electrotherapy waveforms identical to: (see page 15)
ару	BTL-5810 SLM	1	-	1	1	1	4	P5810.129V100	P5810.030V200	BTL-5610
ther	BTL-5818 SLM	-	1	1	1	1	4	P5818.129V100	P5818.030V200	BTL-5645
Combi therapy	BTL-5810 SL	1	-	1	1	-	3	P5810.101V100	P5810.002V200	BTL-5610
ŏ	BTL-5820 SL	2	-	1	1	-	4	P5820.101V100	P5820.002V200	BTL-5620
	BTL-5825 SL	2	-	1	1	-	4	P5825.101V100	P5825.002V200	BTL-5625
	BTL-5810 S	1	-	1	-	-	2	P5810.103V100	P5810.004V200	BTL-5610
	BTL-5820 S	2	-	1	-	-	3	P5820.103V100	P5820.004V200	BTL-5620
	BTL-5825 S	2	-	1	-	-	3	P5825.103V100	P5825.004V200	BTL-5625
	BTL-5810 L	1	-	-	1	-	2	P5810.105V100	P5810.006V200	BTL-5610
	BTL-5820 L	2	-	-	1	-	3	P5820.105V100	P5820.006V200	BTL-5620
	BTL-5825 L	2	-	-	1	-	3	P5825.105V100	P5825.006V200	BTL-5625
	BTL-5810 SM2	1	-	1	-	2	4	P5810.125V100	P5810.026V200	BTL-5610
	BTL-5818 SM2	-	1	1	-	2	4	P5818.125V100	P5818.026V200	BTL-5645
	BTL-5810 LM2	1	-	-	1	2	4	P5810.127V100	P5810.028V200	BTL-5610
	BTL-5825 M2	2	-	-	-	2	4	P5825.123V100	P5825.024V200	BTL-5625
	BTL-5800 SLM2	-	-	1	1	2	4	P5800.121V100	P5800.022V200	-
	BTL-5800 SM2	-	-	1	-	2	3	P5800.117V100	P5800.018V200	-
	BTL-5800 LM2	-	-	-	1	2	3	P5800.119V100	P5800.020V200	-
	BTL-5800 SL	-	-	1	1	-	2	P5800.101V100	P5800.002V200	-
Puls	BTL-5610 Single	1	-	-	-	-	1	P5610.101V100	P5610.002V200	-
- 1	BTL-5620 Double	2	-	-	-	-	2	P5620.101V100	P5620.002V200	-
Electrotherapy	BTL-5625 Double Plus	2	-	-	-	-	2	P5625.101V100	P5625.002V200	-
Elec	BTL-5640 Quad	4	-	-	-	-	4	P5640.103V100	P5640.002V200	-
	BTL-5645 Quad Plus	4	-	-	-	-	4	P5645.103V100	P5660.002V200	-
pun	BTL-5710 Sono	-	-	1	-	-	1	P5710.101V100	P5710.003V200	-
Ultrasound	BTL-5720 Sono	-	-	2	-	-	2	P5720.102V100	P5720.004V200	-
Laser	BTL-5110 Laser	-	-	-	1	-	1	P5110.101V100	P5110.003V200	-
	BTL-5920 Magnet	-	-	-	-	2	2	P5920.101V100	P5920.002V200	-
Magnet	BTL-5940 Magnet	-	-	-	-	4	4	P5940.101V100	P5940.002V200	-

Single therapy



AFTER SUCCESSFUL MARKET INTRODUCTION OF THE BTL-5000 SERIES, BTL COMES WITH ANOTHER NEW AND INNOVATIVE PHYSICAL THERAPY PRODUCT LINE: THE BTL-4000 SERIES.

THE BTL-4000 PRODUCT RANGE OFFERS AN EFFECTIVE SOLUTION TO ALL YOUR PHYSIOTHERAPY NEEDS, FEATURING FULL RANGE OF PARAMETERS AND A GREAT VARIETY OF FUNCTIONS COMBINED WITH EASY-TO-USE OPERATION.

THE MAIN FEATURES OF THE BTL-4000 SERIES INCLUDE:

		1 2
--	--	-----

up to 2 types of physiotherapy treatments in one unit – combination of electrotherapy, ultrasound, laser or magnetotherapy



4.3" colour touch screen display (BTL-4000 Topline)



graphic display (BTL-4000 Professional and BTL-4000 Optimal)



numeric displays for time/intensity



built-in rechargeable battery (BTL-4000 Professional and BTL-4000 Topline) and mains supply



built-in BTL therapy guide

- therapeutic protocols (BTL-4000 Professional and BTL-4000 Topline) and/or built-in numeric programmes (BTL-4000 Optimal)



therapeutic encyclopaedia



user-defined therapeutic protocols



sound type and volume adjustment, auto switch-off



self test of applicators, electrodes and patient cables visual identification of active accessory



multilingual unit



portability

General technical specifications of the BTL-4000 series

Control display	4.3" colour touch screen (BTL-4000 Topline)				
	graphic display (BTL-4000 Professional and BTL-4000 Optimal)				
Therapy displays for remote observation	2× numeric, active LED (green)				
Dimensions (mm)	160 × 140 × 350				
Weight (kg) – less accessories	max. 3 kg				
Power supply	100-240 V, 50-60 Hz				
Internal rechargeable battery	BTL-4000 Topline and BTL-4000 Professional				
Charging time	max. 3 hours				
Class according to MDD 93/42/EEC	IIb				
Equipment protection class	II (according to IEC 536)				



THE ELECTROTHERAPY BTL-4000 PULS TOPLINE & PROFESSIONAL

The BTL-4000 Puls Topline and Professional electrotherapy products come either as 1 or 2-channel electrotherapy units, with a full selection of waveforms (for details see page 38). All models have built-in rechargeable battery. In addition, the BTL-4000 Puls Topline units feature 4.3" colour touch screen for comfortable operation and colour therapeutic encyclopaedia.

Features and benefits of the BTL-4000 Topline and Professional electrotherapy

- ♦ Full range of low and medium frequency waveforms and their modifications (see page 38)
- +/- Easy change of electrodes' polarity
- ♦ Constant Current and Constant Voltage modes CC/CV
- Programmable sequences
- Electrodiagnostics: I/t curve, motoric point, rheobasis and chronaxie, accommodation coefficient (BTL-4615, BTL-4625)
- Test of electrodes and patient cables' quality
- ♦ Combination with ultrasound or laser or magnetotherapy modules
- Connection to the BTL Vac vacuum unit (option)
- Cart (option)



BTL-4000 Topline

colour touch screen



(BTL-4000 Topline)

rechargeable battery



encyclopaedia



therapy protocols



numeric displays



for time/intensity



(BTL-4000 Professional)

test of accessories



multilingual unit



portability



user-defined protocols



unit adjustments

graphic display



THE ELECTROTHERAPY BTL-4000 PULS OPTIMAL

The BTL-4000 Puls Optimal electrotherapy line features 1 and 2 channel electrotherapy units differing in the number of waveform types. For details see page 39.

- ♦ Wide range of low and medium frequency currents and their modifications
- ♦ 2-channel units with semi-independent outputs for simultaneous treatment of 2 patients
- ♦ Built-in numeric therapy programmes
- ♦ Connection to the BTL Vac vacuum unit (option)





numeric displays
for time/intensity



graphic display



test of accessories



multilingual unit



user-defined protocols



unit adjustments



Expand your electrotherapy possibilities by using the BTL Vac

For details see page 12



THE ELECTROTHERAPY BTL-4000 PULS

	BTL-4610	BTL-4615	BTL-4620	BTL-4625	BTL-4610	BTL-4615
	Topline	Topline	Topline	Topline	Professional	Professional
Ordering number	P4610.003V100	P4615.003V100	P4620.003V100	P4625.003V100	P4610.002V100	P4615.002V100
Control display	touch screen	touch screen	touch screen	touch screen	graphic display	graphic display
Electrotherapy channels	1	1	2	2	1	1
Galvanic	\$	\$	\$	\$	\$	\$
Diadynamic	\$	\$	\$	\$	\$	\$
Prog. sequences	20	20	20	20	20	20
Trabert	\$	\$	\$	\$	\$	\$
Faradic	\$	\$	\$	\$	\$	\$
Neofaradic	\$	\$	\$	\$	\$	\$
Russian stimulation	\$	\$	\$	\$	\$	\$
Stimulation pulses	\$	\$	\$	\$	\$	\$
Rectangular pulses	\$	\$	\$	\$	\$	\$
TENS sym, asym, alt	\$	\$	\$	\$	\$	\$
2-pole interference	\$	\$	\$	\$	\$	\$
4-pole interference	_	-	\$	\$	-	-
Triangular pulses	\$	\$	\$	\$	\$	\$
Exponential pulses	\$	\$	\$	\$	\$	\$
Exponential pulses with rise	\$	\$	\$	\$	\$	\$
Combined pulses	\$	\$	\$	\$	\$	\$
Isoplanar field	_	_	_	\$	_	-
Dipole vector	_	_	_	\$	_	-
Interrupted pulses	_	\$	-	\$	_	\$
Leduc current	_	\$	_	\$	-	\$
H-wave	_	\$	_	\$	-	\$
Microcurrents	_	\$	-	\$	_	\$
Medium frequency surges	_	\$	-	\$	-	\$
Spastic current	-	\$	-	\$	_	\$
Electrodiagnostics	-	\$	-	\$	-	\$
HVT (option)	optional	optional	_	_	optional	optional
Standard accessories						
rubber electrodes	2×	2×	4×	4×	2×	2×
sponge covers	2×	2×	4×	4×	2×	2×
fixation belts	1×	1×	1×	1×	1×	1×
patient cable	1×	1×	2×	2×	1×	1×
adapter	\$	\$	\$	\$	\$	\$

THE ELECTROTHERAPY BTL-4000 PULS

	BTL-4620	BTL-4625	BTL-4610	BTL-4620	BTL-4625
	Professional	Professional	Optimal	Optimal	Optimal
Ordering number	P4620.002V100	P4625.002V100	P4610.001V110	P4620.001V110	P4625.001V110
Control display	graphic display	graphic display	graphic display	graphic display	graphic display
Electrotherapy channels	2	2	1	2	2
Galvanic	\$	\$	\$	\$	\$
Diadynamic	\$	\$	\$	\$	\$
Prog. sequences	20	20	5	5	5
Trabert	\$	\$	\$	\$	\$
Faradic	\$	\$	\$	\$	\$
Neofaradic	\$	\$	\$	\$	\$
Russian stimulation	\$	\$	\$	\$	\$
Stimulation pulses	\$	\$	-	-	\$
Rectangular pulses	\$	\$	-	-	\$
TENS sym, asym, alternating	\$	\$	\$	\$	\$
2-pole interference	\$	\$	\$	\$	\$
4-pole interference	\$	\$	-	\$	\$
Triangular pulses	\$	\$	_	-	\$
Exponential pulses	\$	\$	_	-	\$
Exponential pulses with rise	\$	\$	_	-	\$
Combined pulses	\$	\$	_	-	\$
Isoplanar field	-	\$	_	-	\$
Dipole vector	-	\$	_	_	\$
Interrupted pulses	-	\$	_	-	-
Leduc current	-	\$	_	-	_
H-wave	-	\$	-	-	-
Microcurrents	-	\$	-	-	-
Medium frequency surges	-	\$	_	-	_
Spastic current	-	\$	_	-	-
Electrodiagnostics	-	\$	-	-	-
HVT (option)	_	-	-	-	-
Standard accessories					
rubber electrodes	4×	4×	2×	4×	4×
sponge covers	4×	4×	2×	4×	4×
fixation belts	1×	1×	1×	1×	1×
patient cable	2×	2×	1×	2×	2×
adapter	\$	\$	\$	\$	\$
CD with user manual	\$	\$	\$	\$	\$

Optional accessories: see page 56

For description of all electrotherapy currents see page 14



THE ULTRASOUND THERAPY BTL-4710 SONO TOPLINE & PROFESSIONAL

The BTL-4710 Sono Topline and Professional ultrasound units feature outstanding parameters, ergonomic design and a great flexibility due to the built-in rechargeable battery. In addition, the BTL-4000 Sono Topline units feature 4.3" colour touch screen for comfortable operation and colour therapeutic encyclopaedia.

The BTL-4710 Sono Topline and Professional features and benefits

- Multifrequency system and multifrequency heads 1 and 3 MHz frequencies are available
- ♦ Continuous and pulse mode 10–150 Hz (step 10 Hz)
- Duty cycle 6.25%, 12.5%, 25%, 50%, 100%
- High power up to 3 W/cm²
- ♦ Ergonomic heads with visual head identification and visual patient contact indication
- Waterproof heads suitable for subaqual therapy
- Monitoring of patient contact quality on the display, acoustic signalization
- Simultaneous connection of both heads
- Combination therapy ultrasound with electrotherapy, direct input for electrotherapy
- Therapy sequences
- Cart (option)



BTL-4000 Professional



Ultrasound heads

The BTL ultrasound applicators are supplied either in the size of 1 cm² or 4 cm². The probes are ergonomically shaped, lightweight, waterproof and with built-in visual contact control.

Both ultrasound heads employ either 1 MHz or 3 MHz frequency. Due to their simultaneous connection to the unit, they are immediately ready for use. The Beam Nonuniformity Ratio (BNR) is less than 5 to avoid high concentrations of energy at one point.



colour touch screen



(BTL-4000 Topline)





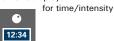
encyclopaedia



therapy protocols



numeric displays



graphic display



(BTL-4000 Professional)

test of accessories



multilingual unit



portability



user-defined protocols



unit adjustments



THE ULTRASOUND THERAPY BTL-4710 SONO OPTIMAL

The BTL-4710 Sono Optimal is an ergonomic and easy to operate ultrasound unit.

- ♦ Ergonomic water resistant 1 MHz ultrasound heads of 1 and 4 cm² with visual head identification and visual patient contact indication
- Simultaneous connection of both heads
- ♦ Continuous and pulse mode 10–150 Hz (adjustable in 10 Hz steps)
- Duty cycle 6.25%, 12.5%, 25%, 50%, 100%

♦ Built-in numeric therapeutic programmes

♦ High power up to 3 W/cm²

♦ Cart (option)



numeric displays for time/intensity





12:34

multilingual unit



user-defined protocols



unit adjustments



Model	BTL-4710 Sono Topline BTL-4710 Sono Professional	BTL-4710 Sono Optimal	
Ordering No.	P4710.003V100 (Topline) P4710.002V100 (Professional)	P4710.001V110	
Control display	touch screen (Topline) graphic display (Professional)	graphic display	
Number of independent channels	1	1	
Number of heads simultaneously connected	2	2	
Modular frequency	10-150 Hz	10-150 Hz	
Duty factor	6.25%, 12.5%, 25%, 50%, 100%	6.25%, 12.5%, 25%, 50%, 100%	
Max. output in cont. mode	2 W/cm ²	2 W/cm ²	
Max. output in pulse mode	3 W/cm ²	3 W/cm ²	
ERA	1 cm ² and 4 cm ² +/- 10%	1 cm ² and 4 cm ² +/- 10%	
Standard accessories			
large 4 cm² head	1/3 MHz	1 MHz	
ultrasound gel 0.3 l	\$	\$	
adapter, CD with manual and user guide	\$	\$	





THE LASER THERAPY BTL-4110 LASER TOPLINE & PROFESSIONAL

The BTL-4110 Laser Topline and Professional is a low level laser therapy unit offering a wide selection of specialised therapeutic programmes for physical therapy and other medical areas. The variability of therapy parameters gives a lot of options for LLLT specialists. In addition, the BTL-4000 Laser Topline units feature 4.3" colour touch screen for comfortable operation and colour therapeutic encyclopaedia.

Features and benefits of the BTL-4110 Laser Topline and Professional

- Large selection of red and infrared laser probes and clusters 2 probes can be simultaneously connected (see page 22)
- ♦ Continuous and pulse laser therapy (frequency modulation 0–10000 Hz)
- Pre-programmed treatment protocols for rehabilitation, orthopaedics, sports medicine, dentistry, gynaecology, dermatology, ENT, paediatrics and general practice (see page 23)
- ♦ Duty factor 10-90%
- Acupuncture set for laser acupuncture and Nogier frequencies
- ♦ Choice of optical attachments for ENT, gynaecology, urology and dentistry
- Cart (option)



colour touch screen



(BTL-4000 Topline)

rechargeable battery



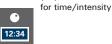
encyclopaedia



therapy protocols



numeric displays



graphic display



(BTL-4000 Professional)

test of accessories



multilingual unit



portability



user-defined protocols



unit adjustments



THE LASER THERAPY BTL-4110 LASER OPTIMAL

The BTL-4110 Laser Optimal therapy unit brings the choice of various programmes used in the LLLT treatment.

Features and benefits of the BTL-4110 Laser Optimal

- Large selection of red and infrared laser probes and clusters 2 probes can be simultaneously connected (see page 22)
- ♦ Continuous and pulse laser therapy (frequency modulation 0–10000 Hz)
- ♦ Duty factor 10–90%
- Acupuncture set for laser acupuncture, Nogier and EAV frequencies
- Numeric programmes with pre-set treatment parameters used in rehabilitation, orthopaedics, sports medicine, dentistry, gynaecology, dermatology, ENT, paediatrics and general practice (see page 23)
- Choice of optical attachments for ENT, gynaecology, urology and dentistry
- ♦ Cart (option)



numeric displays

for time/intensity



test of accessories

12:34



graphic display



user-defined protocols



Model	BTL-4110 Laser Topline
	BTL-4110 Laser Professional

110 L	aser T	opline	BTL-4110	Laser	Optima

	BTL-4110 Laser Professional				
Ordering No.	P4110.003V100 (Topline) P4110.002V100 (Professional)	P4110.001V110			
Control display	touch screen (Topline) graphic display (Professional)	graphic display			
No. of channels	1	1			
Probes connected simult.	2	2			
Modes of operation	continual and pulse				
Dose	0.1–99.0 J/cm² (fine adjustable	9)			
Frequency	0.1–10000 Hz (fine adjustable)				
Laser power	20-100% (fine adjustable)				
Therapy area	0.1-99.0 cm ²				
Acupuncture	points detection, visual and aco	ustic signalization, Nogier frequencies			
Duty factor	10-90%				
Laser class	3B				
Standard accessories	adapter, CD with manual and us	ser guide			



LASER PROBES

BTL offers a range of divergent and convergent infrared (830 nm, 50-400 mW) and red (685 nm, 30-50 mW) probes.

While infrared probes penetrate deeper into the tissue, the red probes are particularly suitable for treatment of superficial areas, such as wounds, scars and haematoma. The infrared probes are supplied with additional visible light.

For detailed parameters of laser probes see page 22





LASER CLUSTERS

Laser clusters present the latest in laser therapy treatment of large areas. The homogenous laser beam treats easily and in short time even the areas of 50 cm². (The area of 50 cm² is treated with the laser beam density of 2 J/cm² for just 4 minutes.)

Besides the standard laser beam, the cluster includes 13 high luminescence LEDs with wavelength of 470 nm suitable for aesthetic applications (acne, hypo-pigmentation, etc). All clusters work in continual as well as pulse mode, and they are additionally equipped with blue pilot beam. The laser clusters can be used with both the BTL- 4000 and BTL-5000 laser units.

The laser cluster can be additionally supplied with the specially designed holder for comfortable laser application without the therapist assistance. When using a cluster with the holder, the same results as with a laser scanner are guaranteed. The results can be even better thanks to the exceptionally high-powered BTL laser clusters.

For detailed parameters of laser clusters see page 22



Safety eyewear



Optical attachments for easy application in ENT, dentistry, urology and gynaecology

THE PORTABLE LASER THERAPY BTL-2000

The BTL-2000 is a portable and compact yet highly powerful low level laser therapy device. It is designed for easy use and it is understandable even to those who are new to laser therapy. Parameters can be easily changed as desired and your own programmes can be created and stored. The unit's software allows continuous change of frequency, density, power and area. When a parameter is changed, the unit automatically recalculates the remaining parameters. The BTL- 2000 provides a large number of pre-set treatment protocols.

The summary of main features

- Portable unit with heavy duty accumulator and adapter
- ♦ Pre-programmed therapy protocols for different specializations (see page 23)
- Free lots for user-defined programmes
- Red and infrared laser probes
- ♦ LCD display for an easy operation
- Built-in patient database
- ♦ Carry case (option)



Technical specifications

Ordering No.	L020.000V506
Modes of operation	Continual and pulse
Dose	fine adjustable 0.1-99.0 J/cm²
Frequency	fine adjustable 0.1-5000 Hz
Divergent red probes	685 nm/30 mW, 685 nm/50 mW
Convergent infrared probes	830 nm/50 mW, 830 nm/100 mW, 830 nm/200 mW, 830 nm/300 mW, 830 nm/400 mW
Laser power	adjustable 20–100%
Therapy area	adjustable 0.1–99.0 cm²
Acupuncture	points detection, visual and acoustic signalization, Nogier frequencies
Duty factor	10-90%
Laser class	3B
Mains supply	built-in accumulator 8× NiCd, adapter 230 V/50-60 Hz, 115 V/50-60 Hz
Dimensions (mm)	130 × 230 × 30
Weight (less accessories)	0.7 kg
Standard accessories:	adapter



THE MAGNETOTHERAPY BTL-4920 MAGNET TOPLINE & PROFESSIONAL

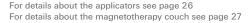
The BTL-4920 Magnet Topline and Professional is an advanced magnetotherapy device offering a wide selection of therapeutic programmes for physical therapy and other medical fields. The variability of therapy parameters gives a lot of options for magnetotherapy specialists. In addition, the BTL-4000 Magnet Topline units feature 4.3" colour touch screen for comfortable operation and colour therapeutic encyclopaedia.

Features and benefits of the BTL-4920 Magnet Topline and Professional

- ♦ Pulsed Magnetic Field (PMF), rectangular, triangular, sinusoidal, exponential and continual
- Combination of pulsed and static magnetic field with adjustable ratio (for acute and anti-inflammatory therapies)
- ♦ Modulation of pulses: burst, sinusoidal surge, trapezoidal surge, symmetric surge



Choose your BTL magnetic applicators with FMF Technology™









BTL-4000 Topline

colour touch screen



(BTL-4000 Topline)





encyclopaedia



therapy protocols



numeric displays



graphic display



test of accessories



multilingual unit



portability



user-defined protocols



unit adjustments



THE MAGNETOTHERAPY BTL-4920 MAGNET OPTIMAL

The BTL-4920 Magnet Optimal is a magnetotherapy device offering a wide choice of programmes used in the magnetotherapy treatment.

Features and benefits of the BTL-4920 Magnet

- ♦ Pulsed Magnetic Field (PMF), rectangular, triangular, sinusoidal, exponential and continual
- Combination of pulsed and static magnetic field with adjustable ratio (for acute and anti-inflammatory therapies)



numeric displays for time/intensity



graphic display



test of accessories



multilingual unit



user-defined protocols



unit adjustments



Model	BTL-4920 Topline BTL-4920 Professional	BTL-4920 Optimal
Ordering No.	P4920.302V100 (Topline) P4920.002V100 (Professional)	P4920.001V110
Control display	touch screen (Topline) graphic display (Professional)	graphic display
Number of output channels	2	2
Maximum pulse induction*	128 mT	128 mT
Frequency range	0-160 Hz	0-160 Hz
Wave swing	- 20%	- 20%
Standard accessories 2x extension cables for magnetotherapy applicators, adapter, CD with manual and user guide		otherapy applicators, adapter,

^{*}different for each applicator





THE BTL-4000 COMBI TOPLINE & PROFESSIONAL

The BTL-4000 Combi Topline and Professional units include two physiotherapy treatments in one unit. You have a choice of combining two selected treatments: electrotherapy, ultrasound, laser therapy or magnetotherapy in a single device. In addition, the BTL-4000 Combi Topline units offer the operation of 3 independent channels, such as 2-channel electrotherapy and ultrasound.

Operating two different types of physical therapy treatments from one unit saves your time, office space and helps you economize on your investment.

The particular therapy modules built in the BTL-4000 Combi Topline and Professional units have all features of single therapy BTL-4000 Topline and Professional units described previously (see pages 36 – 47).



colour touch screen
(BTL-4000 Topline)



2-in-1 unit









numeric displays
for time/intensity











graphic display

(BTL-4000 Professional)



portabilit



user-defined protocols



unit adjustments

THE BTL-4000 COMBI OPTIMAL

The BTL-4000 Combi Optimal units include two physiotherapy treatments in one unit. You have a choice of combining two selected treatments: electrotherapy, ultrasound, laser therapy or magnetotherapy in a single device.

Operating two different types of physical therapy treatments from one unit saves your time, office space and helps you economize on your investment.

The particular therapy modules built in the BTL-4000 Combi Optimal units have all features of single therapy BTL-4000 Optimal units described previously (see pages 36 - 47).

Optional accessories: see pages 56 - 57



2-in-1 unit



numeric displays

for time/intensity



graphic display



test of accessories



multilingual unit



user-defined protocols



unit adjustments





THE MOST POPULAR BTL-4000 COMBI UNITS

BTL-4825 S COMBI TOPLINE

- 2-channel electrotherapy with a full range of waveforms
- Multifrequency ultrasound with visual & acoustic contact control



BTL-4800 LM COMBI TOPLINE

- Laser with a choice of powerful laser probes and laser clusters
- ♦ Magnetotherapy with FMF (Focused Magnetic Field) Technology™



BTL-4810 S COMBI PROFESSIONAL

- Electrotherapy with a full range of waveforms
- ♦ Multifrequency ultrasound with visual & acoustic contact control



BTL-4816 M COMBI PROFESSIONAL

- Electrotherapy with a full range of waveforms
- 4-pole interferential therapy
- ♦ Magnetotherapy with FMF (Focused Magnetic Field) Technology™



PHYSIOTHERAPY

OVERVIEW OF THE BTL-4000 MOST COMMON MODELS

				VLI	· V I L	. • • •	J I I		DIL-4000 MOS	SI COMMON MODELS
			Electrotherapy channels	4-pole electrotherapy channels	Ultrasound therapy channels	Laser therapy channels	Magnetotherapy channels	All therapeutic channels	Ordering No.	Electrotherapy waveforms identical to: (see pages 38–39)
		BTL-4825 S Topline	2	-	1	-	-	3	P4825.301V100	BTL-4625 Topline
ργ		BTL-4810 S Professional	1	-	1	-	-	2	P4810.004V100	BTL-4610 Professional
thera		BTL-4815 S Professional	1	-	1	-	-	2	P4815.004V100	BTL-4615 Professional
Combi therapy		BTL-4816 S Professional	-	1	1	-	-	2	P4816.004V100	BTL-4620 Professional
ဝိ		BTL-4810 S Optimal	1	-	1	-	-	2	P4810.003V110	BTL-4610 Optimal
		BTL-4810 L Professional	1	-	-	1	-	2	P4810.006V100	BTL-4610 Professional
		BTL-4815 L Topline	1	-	-	1	-	2	P4815.306V100	BTL-4615 Topline
		BTL-4816 L Professional	-	1	-	1	-	2	P4816.006V100	BTL-4620 Professional
		BTL-4810 L Optimal	1	-	-	1	-	2	P4810.005V110	BTL-4610 Optimal
		BTL-4810 M Professional	1	-	-	-	2	3	P4810.016V100	BTL-4610 Professional
		BTL-4816 M Professional	-	1	-	-	2	3	P4816.016V100	BTL-4620 Professional
		BTL-4800 SL Professional	-	-	1	1	-	2	P4800.002V100	
		BTL-4800 SL Optimal	-	-	1	1	-	2	P4800.001V110	-
		BTL-4800 SM Topline	-	-	1	-	2	3	P4800.316V100	-
		BTL-4800 LM Professional	-	-	-	1	2	3	P4800.014V100	
ару	Puls	BTL-4610 Topline	1	-	-	-	-	1	P4610.003V100	-
ngle therapy	- 1	BTL-4615 Topline	1	-	-	-	-	1	P4615.003V100	-
ngle	ectrotherapy	BTL-4620 Topline	2	-	-	-	-	2	P4620.003V100	-
S	Elec	BTL-4625 Topline	2	-	-	-	-	2	P4625.003V100	-
		BTL-4610 Professional	1	-	-	-	-	1	P4610.002V100	-
		BTL-4615 Professional	1	-	-	-	-	1	P4615.002V100	-
		BTL-4620 Professional	2	-	-	-	-	2	P4620.002V100	-
		BTL-4625 Professional	2	-	-	-	-	2	P4625.002V100	-
		BTL-4610 Optimal	1	-	-	-	-	1	P4610.001V110	-
		BTL-4620 Optimal	2	-	-	-	-	2	P4620.001V110	-
		BTL-4625 Optimal	2	-	-	-	-	2	P4625.001V110	-
_	Sono	BTL-4710 Topline	-	-	1	-	-	1	P4710.003V100	-
	Ultrasound - Sono	BTL-4710 Professional	-	-	1	-	-	1	P4710.002V100	-
	Jltraso	BTL-4710 Optimal	_	_	1	_	_	1	P4710.001V110	-
-	Laser	BTL-4110 Topline	_	_	_	1	_	1	P4110.003V100	-
	La	BTL-4110 Professional	_	_	_	1	_	1	P4110.002V100	-
		BTL-4110 Optimal	_	_	_	1	_	1	P4110.001V110	-
-	net	BTL-4920 Topline	-	_	_	-	2	2	P4920.302V100	-
	Magnet	BTL-4920 Professional	-	-	-	-	2	2	P4920.002V100	-
		BTL-4920 Optimal	-	-	-	-	2	2	P4920.001V110	-



THE SHORTWAVE THERAPY BTL-20

The BTL-20 shortwave diathermy is a microprocessor-controlled unit for continuous and pulsed applications. Direction-adjustable arms enable comfortable treatment of each body part, and a wide range of applicators assures maximum therapeutic effect. The unit is equipped with the timer that automatically ends the therapy after the pre-set time has elapsed.

Main features

- High performance solid-state generator
- ♦ Continuous and pulsed mode (allows thermal and a-thermal treatment)
- ♦ Capacitive and inductive applicators
- High output power, continuously adjustable
- Easy changing of applicators
- Duilt-in timer with automatic shut-off

Available applicators

- ♦ Coil field applicators for treatment of deep body parts and muscles
- ♦ Condenser field applicators (Schliephake) for heating fat and muscle tissue
- Soft-rubber plate applicator



Technical specifications

Ordering No.	P313.000V100
Voltage	230 V
Frequency	27.12 MHz
Max. output power in cont. mode	200 W
Max. output power in pulsed mode	400 W – peak
Pulse frequency	70–350 Hz
Timer	max. 30 min.
Dimensions	850 × 380 × 380 mm
Weight	40 kg
Standard accessories	power cord

THE MICROWAVE THERAPY BTL-21

The BTL-21 microwave diathermy is a microprocessor controlled unit for continuous and pulsed applications. It is suitable for use in out-patient clinics, hospitals, and other facilities. The four joint arms enable comfortable treatment of each body part, and a wide range of applicators assures maximum therapeutic effect. The unit is equipped with the timer that automatically ends the therapy after the pre-set time has elapsed.

Main features

- High performance solid-state generator
- ♦ Continuous and pulsed mode (allows thermal and a-thermal treatment)
- High output power, continuously adjustable
- Easy changing of applicators
- Duilt-in timer with automatic shut-off

Examples of microwave application

- ♦ Thermal treatment
- Myorelaxation and spasmolytic effect
- Improvement of fibrous tissue elasticity (contractures)
- Resorptive effect in case of chronic, inflammatory and post-traumatic infiltrations, edemas and haematomas
- Analgesic effect in connection with myorelaxation and improvement of blood circulation
- ♦ Improvement of enzyme circulation and cell metabolism

Available applicators

- ♦ Hollow
- ♦ Long field
- Round field
- Contact radiators
- Body cavity radiators



Technical specifications

Ordering No.	P313.050V100
Voltage	230 V
Frequency	2450 +/- 50 MHz
Max. output power in cont. mode	250, 50, 10 W
Max. output power in pulsed mode	1600 W – peak
Timer digital	max. 30 min.
Dimensions	850 × 380 × 380 mm
Weight	40 kg
Standard accessories	power cord



BTL-16 PLUS

The BTL-16 Plus is a microprocessor controlled traction device suitable for continuous, intermittent, harmonized cervical and lumbar therapy. The unit has four digital displays and digital interface for easy setting of therapy parameters. It can be used with the traction couches BTL-1100 Trac and BTL-1300 Trac.

Main features include:

- User-friendly digital interface
- ♦ Continuous, intermittent and harmonized traction programmes
- User-defined hold, rest and treatment times
- Intermittent and progressive settings
- Real-time digital treatment tracking
- Built-in safety features
 - patient interrupt switch
 - audible signal at the end of the treatment
 - audible signal if the patient interrupt switch is activated
- Ergonomic design



Technical parameters and accessories for the BTL-16 Plus

Ordering No.	P616.000v100
Therapy	continuous, intermittent, harmonized, progressive
Traction force	0-92 kg
Force time/ Rest time (intermittent therapy)	0-99 s
Treatment time	0–99 min
Mains supply	110-120V/220-240V 50Hz/60Hz 1,2A/0,6A
Dimensions W × H × L	295 × 270 × 360 mm
Weight	13,6 kg
Standard accessories	patient interrupt switch, nylon traction cord with metal fitting, cervical harness with spreader bar

ACCESSORIES FOR THE BTL-16 PLUS



Patient interrupt switch Ord. No. P616.003v100





Cervical harness with spreader bar Ord. No. P616.001v100





BTL Electrotherapy				
P5600.007	Electrode 70	× 50 mm 1 pc. for BTL-4000/5000 – 2 mm input		
P5600.008	Electrode 120	0 × 80 mm 1 pc. for BTL-4000/5000 – 2 mm input		
P006.014V101	Sponge cove	ver 55 × 70 mm, blue, for electrodes 6 × 4, 7 × 5		
P006.016V101	Sponge cove	r 125 × 105 mm, blue, for electrodes 12 × 8		
P5600.022V100	Fixation strap	os for electrodes		
P5600.010	Bipolar vagin	al electrode		
P5600.011	Bipolar rectal	polar rectal electrode		
P5600.001V102	Patient cable	for electrotherapy BTL-4000 Topline/Professional/5000		
P5600.002V102	Dual patient	Dual patient cable for electrotherapy BTL-4000 Topline/Professional, BTL-5000; with blue LEDs		
P5600.003V100	1 pair of elec	1 pair of electrode connection cables for electrotherapy BTL-4000 Topline/Professional/5000, light grey, 1.2 m		
P5600.004V100	1 pair of elec	1 pair of electrode connection cables for electrotherapy BTL-4000 Topline/Professional/5000, dark grey, 1.2 m		
P5600.018V100	1 pair of exte	1 pair of extended electrode connection cables for electrotherapy BTL-4000 Optimal, light grey, 2.2 m		
P5600.019V100	1 pair of exte	1 pair of extended electrode connection cables for electrotherapy BTL-4000 Optimal, dark grey, 2.2 m		
P5600.013V100	Holder for po	Holder for point electrode for BTL-4000/5000		
P5600.014	Ball point attachment for BTL-4000/5000 – 2 mm in diameter			
P5600.015	Ball point attachment for BTL-4000/5000 – 6 mm in diameter			
P5000.003V100		ce cable 1 m for connection of BTL electrotherapy units e/Professional/5000) to BTL Vac and BTL ultrasound therapy units (4000 Topline/Professional/5000)		
modules for upgrade				
P4000.002	Electrotherap	y Plus upgrade memory module for electrotherapy channel BTL-4000. Price includes: additional types of currents		
P4000.004	Memory module for upgrade BTL-4000 Optimal – diagnoses			
P5000.004V100	Electrotherapy Plus upgrade memory module for electrotherapy channel BTL-5000. Price includes: electrodiagnostics, additional types of currents			
P5600.017V102	High-voltage	therapy (HVT) set for BTL-4000 Topline/Professional/5000. Price includes: HVT generator.		
DTI II				
BTL ultrasound therapy	N.A. Jai fur			
P5700.001V110 P5000.003V100	•	Multi-frequency head 1 cm² for BTL-4000/5000		
F3000.003V100		ce cable 1 m for connection of BTL electrotherapy units e/Professional/5000) to BTL Vac and BTL ultrasound therapy units (4000 Topline/Professional/5000)		
P007.010V102	Ultrasound g	el 0.3 I		
P007.011V101	Ultrasound g	el 1 l		
BTL VAC				
PVAC.053	Suction cup 6	electrode 30 mm for BTL Vac		
P012.006	Suction cup electrode 65 mm for BTL Vac			
P012.005	Suction cup electrode 95 mm for BTL Vac			
PVAC.052	Sponge for electrode 30 mm for BTL Vac			
P012.008	Sponge for el	lectrode 65 mm for BTL Vac		
P012.007	Sponge for electrode 95 mm for BTL Vac			
PVAC.050	Patient cable for BTL Vac, white and red plugs, grey cable			
PVAC.051	Patient cable for BTL Vac, white and red plugs, white cable			
P012.052	Patient cable	for BTL Vac, BTL-12, white plugs, white cable		
P012.051	Patient cable	for BTL Vac, BTL-12, red plugs, white cable		
PVAC.054V100	Water tank fo	or BTL Vac		
BTL Laser therapy				
L445.003V100	Red cluster	685 nm/200 mW (4 × 50) Laser + 470 nm/200 mW (13 × 16) LED blue		
L445.001V100	Infrared cluster	830 mm/800 mW (4 × 200) Laser + 470 nm/200 mW (13 × 16) LED blue		
L445.002V100	Infrared cluster	830 mm/1600 mW (4 × 400) Laser + 470 nm/200 mW (13 × 16) LED blue		
L445.004V100	Combined cluster	685 nm/200 mW (4 × 50) Laser + 830 mm/800 mW (4 × 200) Laser + 470 nm/200 mW (13 × 16) LED blue		
L445.005V100	Combined cluster	685 nm/200 mW (4 × 50) Laser + 830 mm/1600 mW (4 × 400) Laser + 470 nm/200 mW (13 × 16) LED blue		

L448.000V200	Red probe	divergent	685 nm/30 mW	
L448.020V200	Red probe	divergent	685 nm/50 mW	
L448.004V200	Infrared probe	convergent	830 nm/50 mW	green navigation
L448.005V200	Infrared probe	convergent	830 nm/100 mW	green navigation
L448.006V200	Infrared probe	convergent	830 nm/200 mW	green navigation
L448.007V200	Infrared probe	convergent	830 nm/300 mW	green navigation
L448.010V200	Infrared probe	convergent	830 nm/400 mW	green navigation
P5100.008		Safety eyewear 600-100	00 nm L3, plastic	
L449.006V100		Optical attachment for de	entristry	
L449.007V100		Optical attachment for El	NT	
L449.008V100		Optical attachment for gy	ynaecology	
L449.005V413		Holder for optical attachment (screwable)		
P5100.003V100		Acupuncture set for BTL- reference electrode, cable		acupuncture attachment for probe,
G000.091V500		Acupuncture set for BTL-	2000. Price includes: acupui	ncture attachment for probe, reference electrode, cable.
L020.007V100		Case for BTL-2000 (for B	TL-2000 from ver. 505)	
L445.056V100		Holder for laser cluster or	r laser probe	
BTL Magnetotherapy				
P5900.001V100		Disc		
P5900.002V100		Double disc		
P5900.003V100		Multi disc		
P5900.004V200		Linear applicator		
P5900.005V100		Small solenoid 30 cm		
P5900.006V100		Big solenoid 60 cm		
P5900.017V100		Magnetotherapy couch		
P5900.007V100		Extension cable for magn	netic applicators	
P5900.014V100		Belt for magnetic applica	tor (disc) - 60 cm	
P5900.015V100		Belt for magnetic applica	tor (double disc) – 85 cm	
P5900.016V100		Belt for magnetic applica	tor (multi disc) - 190 cm	
Therapy modules for upg	rade			
PB5000.010V107		Includes: electrotherapy g	el electrotherapy with accesigenerator, patient cable, $2 \times \epsilon$ fixation straps, 2 pairs of cor	
PB5000.012V101		Includes: interferential ele	1,70	sories for BTL-5000. atient cable, 4× electrode 5 × 7 cm, nnection cables – light grey, dark grey
PB5000.009V152				es for BTL-5000 upgradable, 56xx, 58xx. I, left and right holder of ultrasound heads
PB5000.011V104			el laser with accessories for door sticker, warning sticker	BTL-5000. ; left and right holder of laser probe
P5600.017V102		High-voltage therapy (HV	T) set for BTL-4000 Topline/	Professional/5000. Price includes: HVT generator
PB5900.001V102			el magnetotherapy for BTL-5 y generator, 2x extension ca	000. bles for magnetotherapy applicators
Accessories for BTL-5000) series			
P5000.021V100		Frame for units BTL-5000	colour 5.7" – dark blue	
P5000.023V100		Frame for units BTL-5000	colour 5.7" - orange	
P5000.024V100		Frame for units BTL-5000	colour 5.7" - yellow	
P5000.022V100		Frame for units BTL-5000	colour 5.7" - light blue	
P5000.021V200		Frame for units BTL-5000	colour 8.4" – dark blue	
P5000.023V200		Frame for units BTL-5000	colour 8.4" - orange	
P5000.024V200		Frame for units BTL-5000	colour 8.4" - yellow	
P5000.022V200		Frame for units BTL-5000	colour 8.4" - light blue	
G000.099V101		Touch screen pen pointer	for BTL-5000	



T010.028V100

P4000.001V101	Adapter for BTL-4000		
24000.005V100	Carry case for BTL-4000		
Accessories for shortwave therapy BTL-20			
P313.002V100	Basic accessories for coil field application consisting of 1 four-joint holding arm, 1 coil applicator, diameter 14 cm, 1 special coil field cable		
2313.001V100	Basic accessories for condenser field application consisting of 2 four-joint holding arms, 2 condenser applicators, diameter 13 cm, 2 cables for condenser applicator		
313.003V100	Plate applicator set A consisting of 2 soft-rubber plate applicators, 8×14 cm, with flexible cables, 4 felt spacers, 2 cloth coatings, 2 perforated rubber bands with buttons		
2313.004V100	Plate applicator set B consisting of 2 soft-rubber plate applicators, 12 × 18 cm, with flexible cables, 4 felt spacers, 2 cloth coatings, 2 perforated rubber bands with buttons		
2313.005V100	Coil applicator, diameter 8 cm, without cable		
P313.006V100	Coil applicator, diameter 14 cm, without cable		
313.007V100	Coil field cable, interference eliminated, for coil applicators		
313.008V100	Coil applicator with cable, Triplode of 15 × 35 cm		
313.009V100	Condenser applicator, diameter 4.2 cm		
313.010V100	Condenser applicator, diameter 8.5 cm		
313.011V100	Condenser applicator, diameter 13 cm		
313.012V100	Soft-rubber plate applicator, 8 × 14 cm, with flexible cable		
313.013V100	Soft-rubber plate applicator 12 × 18 cm, with flexible cable		
313.014V100	Felt spacer for soft-rubber plate applicators 8 × 14 cm		
313.015V100	Felt spacer for soft-rubber plate applicators 12 × 18 cm		
313.016V100	Cloth coating for soft-rubber plate applicators 8 × 14 cm		
313.017V100	Cloth coating for soft-rubber plate applicators 12 × 18 cm		
313.018V100	Perforated rubber band with button, 3.2 × 100 cm		
313.019V100	Button for perforated rubber band		
313.020V100	Elastic velcro band, 5 × 60 cm		
313.021V100	Elastic velcro band, 5 × 120 cm		
313.022V100	Four-joint holding arm		
313.023V100	Cable for condenser applicator		
313.024V100	Neon check light		
Accessories for microwave therapy BTL-21			
P313.051V100	Recomended basic accessories consisting of 1 four-joint holding arm, 1 trough-type radiator, 1 RF cabl 250W		
P313.053V100	Trough-type radiator		
313.054V100	Long radiator		
313.055V100	Spot radiator		
313.056V100	Contact radiator, diameter 20 mm		
313.057V100	Contact radiator, diameter 50 mm		
313.058V100	Rectal radiator - symmetrical		
313.059V100 313.059V100	Rectal radiator - symmetrical		
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313.060V100	Vaginal radiator - symmetrical		
313.061V100	Ear radiator with cable		
313.062V100	RF cable for the through type,long and spot radiators, 250 W		
313.063V100	RF cable for contact, rectal and vaginal radiators, 10 W		
313.064V100	Protection covers for rectal and vaginal radiators, 10 pcs.		
313.065V100	Microwave glasses		
313.066V100	Energy indicator		
2313.052V100	Four-joint holding arm		
accessories for traction therapy BTL-16 Plus			
	Pelvic and thoracic traction belts system		

Stool with adjustable height for BTL-1100 Trac and BTL-1300 Trac

BTL manufactures a range of other products for medical and aesthetic use. For details, please ask for a separate catalogue.

CARDIOLOGY

1, 3, 6 and 12 channel ECGs computer-based ECG stress test system ECG holters for 24-hour ECG monitoring ABPM (ambulatory blood pressure monitoring system)



COUCHES

manually and electrically adjustable couches



GYNAECOLOGY CHAIRS

electrically adjustable gynaecology chairs



HYDROTHERAPY

wholebody baths baths for upper and lower extremities obstetrics bath



NO-NEEDLE MESOTHERAPY™ LIPO KONTOUR

Non-invasive solution for Fat-Dissolve, Anti-Cellulite, Anti-Wrinkle and Whitening care



