



# Etius ULM

Biostimulation laser therapy  
 Combination therapy  
 Electrotherapy  
 Magnetotherapy  
 Ultrasound therapy



## Features

product code	A-UE-AST-EULMWH	
large, easy-to-read display with graphic mode support	✓	
independent treatment channels	2	
intensity regulation in the patient circuit for both channels simultaneously or separately	✓	
electrode test	✓	
manual mode	✓	
disease entities selected by name	✓	
preset treatment programs database	✓	
preset treatment sequences database	✓	
user-defined programs database	✓	
favorite programs	✓	
possibility of program names edition	✓	
statistics of performed treatment procedures	✓	
buzzer sound volume regulation	✓	

## Electrotherapy

operation in CC (current stabilization) or CV (voltage stabilization) modes	✓
full galvanic isolation between channels in each mode	✓
Currents and methods	
interferential isoplanar	✓
interferential dynamic	✓
interferential single channel AMF	✓
TENS symmetrical	✓
TENS asymmetrical	✓
TENS alternating	✓
TENS burst	✓
TENS for spastic paralysis therapy	✓
Kotz's / Russian stimulation	✓
tonolysis	✓
diadynamic (MF, DF, CP, CP-ISO, LP)	✓
pulsed rectangular	✓
pulsed triangular	✓
pulsed UR according to Trabert (2 - 5)	✓
pulsed according to Leduc (1 - 9)	✓
pulsed neofaradic (1 - 19)	✓
unipolar sine surge	✓
galvanic	✓
microcurrents	✓

## Ultrasound therapy

waterproof ultrasound heads	✓
continuous / pulse emission	✓
ultrasound head contact control (effective treatment time measured)	✓
head sensitivity calibration according to the needs	✓

## Combined therapy

operation in CC (current stabilization) or CV (voltage stabilization) modes	✓
Currents and methods	✓
interferential single channel AMF	✓
TENS symmetrical	✓
TENS asymmetrical	✓
TENS alternating	✓
TENS burst	✓
Kotz's / Russian stimulation	✓

## Laser therapy

operation with applicators: scanning laser, cluster laser and point probes	✓
emission mode: continuous and pulse	✓
adjustment of laser radiation power	✓
duty factor	✓
possibility of automatic treatment procedure repetition	✓
automatic laser radiation power test	✓
automatic calculation of time relative to treatment parameters - dose, power, duty factor, treatment area	✓
three modes of treatment field irradiation in scanning laser applicators	✓
dedicated modes for cooperation with optical fiber applicators	✓
optical fiber applicators for laserpuncture and ENT applications	✓
pilot beam indicating the application site	✓

## Magnetotherapy

continuous and pulse emission	✓
field shape: sine, triangle, rectangle, half-sinus, half-triangle, half-rectangle	✓
optional operation with one or two plate CPE applicators	✓
convenient application of applicators with straps and velcro belts	✓

## Preset treatment programs

built-in treatment programs, including:	419
built-in treatment programs for electrotherapy	59
built-in treatment programs for ultrasound therapy	48
built-in treatment programs for combined therapy	77
built-in treatment programs for	23

## Preset treatment sequences

built-in treatment sequences for electrotherapy	30
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electrophoresis	
IR point probe programs	30
R point probe programs	20
programs with Nogier frequency	8
programs with Voll frequency	30
cluster laser applicator programs	55
program sequences for scanning laser applicators	25
built-in treatment programs for magnetotherapy	44
user configurable programs	150
favorite programs	160

## Electrotherapy technical parameters

max. current intensity in the patient circuit (CC mode)	
galvanic	40 mA
diadynamic, impulse	60 mA
interferential, Kotz' current	100 mA
unipolar sine surge	100 mA
TENS	140 mA
tonolysis	100 mA
microcurrents	1000 uA
max. voltage amplitude in the patient circuit (CV mode)	140 V
treatment timer	1 - 60 minut

## Laser therapy technical parameters

laser device class	3B
treatment timer	1 s - 99 minutes 59 s

## Laser therapy parameters - scanning laser applicator

scanning laser applicator wavelength	808 & 660 nm
maximum power of the scanning laser applicator	450 & 100 mW

## Ultrasound therapy technical parameters

operating frequency	1 MHz
effective radiation area	1 cm <sup>2</sup> , 4 cm <sup>2</sup>
maximum ultrasound wave intensity	2/3 W/cm <sup>2</sup>
frequency in pulse mode	16 Hz, 48 Hz, 100 Hz
duty factor in pulse mode	10%, 25%, 50%, 75%
treatment timer	1 - 30 minutes

## Laser therapy parameters - biostimulation laser point probes

red light laser point probes wavelength	660 nm
maximum power of the red light point probes	80 mW
infrared laser point probes wavelength	808 nm
maximum power of the infrared point probes	400 mW
power regulation	25%, 50%, 75%, 100%
pulse mode frequency	1 - 5000 Hz
duty factor in pulse mode	25 - 75%, pulse 50 us

## Laser therapy parameters - cluster laser applicator

cluster laser applicator wavelength	4x 808 nm & 5x 660 nm
maximum power of the cluster laser applicator	4x 400 mW & 5x 40 mW

power regulation	50%, 100%	power regulation	50%, 100%
pulse mode frequency	1 - 5000 Hz	pulse mode frequency	1 - 5000 Hz
duty factor for scanning laser applicator pulse mode	75%	duty factor in pulse mode	25 - 75%, pulse 50 us

## Magnetotherapy technical parameters

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maximum magnetic field induction	10 mT
operating frequency	2 - 120 Hz
interval mode parameters	pulse 1 s / break 0,5 - 8 s
treatment timer	1 - 30 minutes

## General technical parameters

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dimensions	30 x 23 x 11 cm
device weight	6 kg
power supply, power consumption	230 V, 50/60 Hz, 70 W, 100 VA