

VECTORSONIC



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Combined 2/4 Pole Interferential, 1 & 3 MHz Ultrasound

Metron Advanced Laser - with 100mW single diode
The Vectorsonic is a combination interferential ultrasound unit, offering three modes of operation, Interferential, Ultrasound or combination mode.

The interferential module offers 10 user defined programmes, manual sweep control, optional user defined surge function, automatic vector rotation, bi-polar and quadropolar operation, and digital displays of time and output.

The ultrasound module offers various pulsed and continuous 1 & 3 MHz outputs.

Each module can be used independently of each other allowing two patient treatments or in combination. When being used in combination the 1 MHz ultrasound transducer becomes the active electrode.

(Please see overleaf for technical details & accessories)



metron
advanced health technology

Ph: 800-500-4844

VECTORSONIC Accessories

Accessories (supplied)



Accessories (optional)



VECTORSONIC SPECIFICATIONS

OUTPUT SPECIFICATION - INTERFERENTIAL THERAPY:

Maximum current in each patient circuit 80 mA average
Indicator resolution 1 Segment = 4 mA
Indicator accuracy +/- 10% for currents greater than 10mA
Maximum voltage in each patient circuit 160 V peak-to-peak
Current Surge Programmes
Disabled or Enabled

Rise 0 - 20 seconds
On 0 - 20 seconds
Fall 0 - 20 seconds
Off 0 - 80 seconds

Waveform Beat Frequencies
Preset Ranges

0 - 15 Hz
0 - 150 Hz
80 - 150 Hz
0 - 250 Hz
Sinewave

Adjustable Range
Current Waveform
Waveform Pulse
Frequencies

2, 4 or 10 kHz
Better than +/- 1%
50, 125 or 250 µs
2 or 4 Pole

OUTPUT SPECIFICATION - ULTRASOUND THERAPY:

Frequency 1.1 MHz +/- 10%
Output power in 2.4 Watts/cm2 +/- 10% maximum continuous mode
(Equivalent to 12 watts absolute for the 5 cm head)
2.4 Watts/cm2 +/- 10% maximum (Equivalent to 2.4 watts absolute for the 1 cm head)
Frequency 3.3 MHz +/- 10%
Output power in 2.4 Watts/cm2 +/- 10% maximum continuous mode
(Equivalent to 2.4 watts absolute for the 1 cm head)

Effective Radiating
Area

Nominally 0.8 square cms +/- 20%
(1 cm head)
Nominally 5.0 square cms +/- 20%
(5 cm head)

Power/intensity
display

accurate to +/- 20% of reading for output in excess of
0.2 Watt/cm2.

Beam Non-Uniformity Ratio

Nominally 5:1 +/- 20%

Ultrasound Modulation

Modulation modes continuous or pulsed

Pulsed modulation:
Pulse frequency

100 Hz +/- 2%

Pulse period

10 milliseconds +/- 2%

Pulse width

1.0, 2.0, 5.0 milliseconds +/- 2%

Pulse duty cycle

1:9 (10%), 1:4 (20%),
1:1 (50%) respectively +/- 2%

Treatment Timer

Maximum treatment time 30 minutes +/- 2%

At time expiration time display shows zero and a two second audible
alarm sounds.

Contact Display
Function

Displays the degree of contact being made with the
patient by the treatment applicator. Loss of contact, which
activates the contact control feature, occurs at approximately
25% of full scale.

Contact Control
Function

To detect poor acoustic coupling between ultrasonic
treatment applicator and patient. At detection of
contact loss the indicator on applicator illuminates red
and after 1 second the treatment timer is halted,
treatment time display flashes and ultrasonic output
power is reduced. On contact detection the treatment
timer is restarted and ultrasonic output power is
restored to the selected value.

MODES OF OPERATION:

Available modes: Interferential, Ultrasound, Combined

TIMER:

Operating range 0 - 40 minutes
Timer accuracy Better than +/- 2.5 %

SAFETY FEATURES:

Lead Off Detector Alarm indicates when electrode impedance exceeds
10 Kohms
Current Limit Current increases limited to
+10% of set level

ELECTRICAL SAFETY:

Manufactured to standards: AS 3200.1 - 1990
IEC 601-1, 1988.

Conformity - Complies with Medical Device Directive (CE)

Applied parts

Patient Connections BF
Applied part classification Class 1

DIMENSIONS:

Width 14.8"
Height 4.8"
Depth 10"
Weight: 6.6 lbs

ORDERING DETAILS:

METVECTORSONIC Combined Interferential/
Ultrasound Unit

Supplied with the following accessories:

1 x METACCUSONICPLH1.5 Multi-frequency head (large)5cm,
1&3MHz
1 x PHYSIOGELU250ML 250ml Ultrasound Gel
METPATIENTLEADB Electrode Cable (Blue) - 1 pair
METPATIENTLEADSW Electrode Cable (White) - 1 pair
METCARBONELECTRODE Rubber Electrodes 8cm x 6cm - 2 Pairs
AUSENVELOPESPONGE85 Electrode Sponges
UNI3645 Elastic Wraps 7.5cm x 61cm - 1 pair
UNI3640 Elastic Wraps 7.5cm x 120cm - 1 pair
1 x METPOWERCABLE Mains lead

Optional accessories:

METTROLLEYT7270 Trolley Metal Shelf & Wire Baskets
METACCUSONICPLH3.7 Ultrasound PLUS HEAD 3MHZ .75SQ/C