

Synergy PIU

2 Channel EMG/SEP Systems

Specifications



General Specifications

Consists of a Patient Interface Unit (PIU), external speaker, medical grade power supply, and a computer with Synergy System Software

Patient Interface Unit (PIU)

Size: 156 mm W x 55 mm D x 241 mm H (6.2" x 2.2" x 9.5")

Weight: Approximately 1 kg (2.2 lbs)

External Speaker

Size: 131 mm W x 66 mm D x 62 mm H (5.2" x 2.6" x 2.4")

Weight: 370 g (13 oz)

Medical Grade Power Supply

Size: 129 mm x 77 mm x 42 mm (5.1" x 3.1" x 1.7")

Weight: 510 g (1 lb 2 oz)

Power Requirements

ISO-1050VA Mains Isolation Transformer

Input 100 V-120 V/200 V-240 V, 50-60 Hz, 1050 VA max

Medical Grade Power Supply

Input: 100-240 V~, 50-60 Hz, 1A max.

Output: 15 Vdc 6A

Note: Fuses are internal (there are no user-accessible fuses)

Display

Notebook

14" TFT-LCD with maximum 1280 x 800 (WXGA) resolution

Tower

19" TFT-LCD display 1440 x 900, maximum

1280 x 1024 (WXGA) resolution

Speaker Unit

Audio Input Approximately 500 mVpk-pk for full output

Maximum Power to Internal Speaker Approximately 1.75 Wrms

Speaker 50 mm (2") diameter

Synergy Language Support

Configurable to English (UK), English (US), French, German, Italian and Spanish

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System Architecture

Synergy Tower

Intel Core 2 Duo Processor, 3.1 GHz, 2 GB RAM, 250 GB hard drive minimum

Synergy Notebook

Intel Core 2 Duo Processor, 2.53 GHz, 2 GB RAM, 250 GB hard drive minimum

DVD \pm RW

Ethernet Network Card

Printer (optional) Laser

Keyboard language-dependent (English - UK and USA, French, German, Italian, Spanish)

Mouse USB

Microsoft Office Language-dependent (English - UK and USA, French, German, Italian, Spanish)

Network Ready

Synergy Software Language-dependent (English - UK and USA, French, German, Italian, Spanish)

Operating System Software

Microsoft® Windows® XP Professional

Electrical Stimulators

Single electrical stimulator. Switchable constant voltage or constant current with a low or high range.

Repetition Rates 0.06 to 200 pps \pm 5% fine control

Stimulus Duration 0.02, 0.05, 0.1, 0.2, 0.5, 1.0 ms (0.02 ms \pm 10%, 0.05 to 1.0 ms \pm 5%)

Output Type Constant Current or Constant Voltage

Range High: 0 - 100 mA, or 0 - 300 V Low: 0 - 25 mA, 0 - 75 V

Delay + 0 to 9 screen divisions

Stimulus Modes Single

Amplifiers and Filters

Optically isolated amplifiers with 2 channels

Input Impedance 1000 M Ω \pm 10%, < 30 pF

CMRR >110 dB

Noise < 0.7 μ V r.m.s (0.1 - 10 kHz bandwidth, inputs short circuited)

Low Frequency (-6 dB/octave) 0.1, 1, 3, 10, 20, 30, 50, 100, 200, 250, 300, 500, 1000 and 2000 Hz (\pm 10%) 1, 1.5, 2, 3, 5, 10, 20K Hz

High Frequency (-12 dB/Octave) 100, 200, 250, 300, 500, 1000 Hz 1, 2, 3, 5, 10K Hz (\pm 10%)

Notch Filter 50 Hz or 60 Hz or OFF, attenuation of 25 dB minimum

Data Acquisition

A-D Conversion 16 Bit ADC

Sweep Duration 1 ms to 50 s per channel (independent control per channel)

LongTrace™ Facility Continuous acquisition of up to 200 x sweep duration (1000s)

Averager Mode Mean, Rectified

Artifact Rejection Configurable per channel

Display Sensitivity 0.01 μ V to 100 mV/div

Other External Connectors

Stimulator A

Amplifier connection

Footswitch

Temperature probe input

Standard Software

Full patient database with user-configurable fields (ODBC compliant)

Protocol Wizard for user-defined test settings

On-line Report Generation software, Microsoft Office compatible

On-line Help

Specifications, design options and terms quoted are subject to change without notice

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