Technical Specifications

Features
- Delivers bi-phasic, constant current trains of stimulation pulses
- Stimulates "user selectable" electrode pairs or bipolar probe
- Two Stimulus Switching Units may be used to electronically select 128 electrodes, 64 electrode pairs
- Train durations can be terminated by "Stop" button
- Countdown of remaining stim time
- User configurable pulse frequency, pulse duration and current level
- Single Stimulus Pulse and Continuous mode available
- Active Stimulation indicator light
- Actual current delivered displayed
- Trigger Out permits synchronizing external equipment
- Check Stim feature measures and verifies current delivery
- Channel Mark feature allows confirmation of stimulated electrodes on the EEG Acquisition Waveforms
- Ictal Disrupt generates single pulse at previous parameters allowing management of after discharges and seizure propagation

Benefits
- Standalone unit or seamlessly integrates with NicOne EEG application software
- Convenient small size facilitates handheld use
- Graphical user interface provides unprecedented ease of use
- Automated Report provides visual documentation and audit of stimulations and responses
- Languages: English, French, Italian, German, Spanish, Portuguese (NicOne EEG software) English, French, Italian, German, Spanish,
- Patient safety assured by continuous error detection monitoring
- Patent pending

General Specifications
Current Output.................................................................Up to 15 mA of isolated current into a 1.0 KΩ load
Stimulus Levels...User specified, adjustable in 0.1 mA increments: 0, 1-15 mA (+/- 20%)
Train Durations.................................................................User specified 0.1-30 seconds (+/- 20%)
Available train durations..............Single, 0.1, 0.2, 0.5, 1, 2, 3, 4, 5, 6, 7, 10, 12, 15, 17, 20, 25, 30 seconds (.1 second increments in NicOne software)
Continuous available (probe biphasic mode)
Pulse Frequencies......................................................User specified 1-100 Hz (+/- 10%)
Available pulse frequencies..............1, 2, 5, 10, 20, 30, 40, 50, 60, 100 Hz seconds
(.1 Hz increments in NicOne EEG software) Single stimulation pulses are also available
Pulse Duration.................................................................User specified 100-1000 usecs (+/- 10%)
Available pulse durations..........100, 150, 200, 250, 300, 400, 500 and 1000 usec
(10 usec increments in NicOne software)
Control Unit Weight..........................................................Less than 1kg
Dimensions
Control Unit .................................................................230 mm (L) x 130 mm (W) x 60 mm (H)
Power Requirements..........................................................15V @ 3A

Environmental Considerations (Operating)
Temperature.................................................................+5 to +40° C, (+41 to +104° F)
Relative Humidity .........................................................25 - 95%, non-condensing
Atmospheric Pressure.......................................................700 hPa to 1060 hPa

Non-Operating Environment (in storage)
Temperature.................................................................-20 to +65° C, (+4 to +149° F)
Relative Humidity ..........................................................10 - 95%
Atmospheric Pressure.......................................................500 hPa to 1060 hPa

Quality System
Manufactured, designed, developed and marketed under ISO 13485 certified quality system

Compliance/Regulatory Standards
Designed, tested, manufactured and certified to meet the following domestic (USA),
Canadian, European and International Standards:
UL 60601-1 Medical Electrical Safety Standard (USA)
CAN/CSA-C22.2 no. 601.1-M90 Medical Electrical Safety Standard (Canada)
EN/IEC 60601-1 Medical Electrical Safety of Medical Equipment (International and Europe)
IEC 60601-2-26 Particular Safety of electroencephalographs equipment
IEC 60601-2-40 Particular Safety of electroencephalographs equipment and evoked response equipment
EN 60601-1-2 Collateral safety standard for EMC
European Community (CE Mark)
Medical Device Directive (MDD) product certified to comply to EC Directive 93/42/EEC
Complies with Food and Drug Administrative (FDA) regulatory requirements
Patient Isolation .................................................................BF
Nicolet Cortical Stimulator Quick Guide

Nicolet Cortical Stimulator
- Delivers bi-phasic, constant current trains of stimulation pulses
- May be used as a stand alone unit
- May be used with Nicolet Bipolar Probe or with intracranial electrodes
- User configurable pulse frequency, pulse duration and current level
- Single Stimulus Pulse and Continuous mode available
- Actual current delivered displayed
- Patient safety assured by continuous error detection monitoring
- Countdown of remaining stim time
- Trigger out permits synchronizing external equipment
- Convenient small size facilitates hand-held use

Nicolet Bipolar Probe
- Disposable one time use
- 2.2 mm gold plated Ball Tips
- Flexible legs
- 15 Foot Cable
- Rubberized mold
- Touch proof connectors
- May be used with extender cables of 6 feet increments

C64 OR/SSU Amplifier
- High quality amplifier provides patient protection from electrocautery
- Stimulus Switching Device (SSU) provides Electronic Method of Switching Electrodes
- 2 amplifiers may be linked to electronically select 128 channels, 64 electrode pairs
- OR Headbox option without Stimulus Switching Device (SSU)
- Amplifier Recovery time < 1 second

Special Software Features
- Ictal Disrupt: Used to interrupt "after discharges"
- Check Stim: Verifies proper stimulator operation
- Channel Mark: Confirms correct electrode pair selected

Dynamically Updated Data
- Unprecedented ‘point and click’ ease of use
- Annotation log automatically displays all stimulation parameters
- Color coded functional responses and ictal events
- Enhanced Grid Strip Editor
- Enhanced Brain Map Views

Nicolet LTM System
- Seamlessly integrates with NicoletOne software
- Immediate viewing of EEG on stimulated electrodes
- Stimulation Parameters selectable in software
- EEG and Video synchronization

Automated Report
- Visual images of brain map with response annotations
- Results displayed by response category
- Functional response includes tabulation of stim parameters
- Legend enables quick response review

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