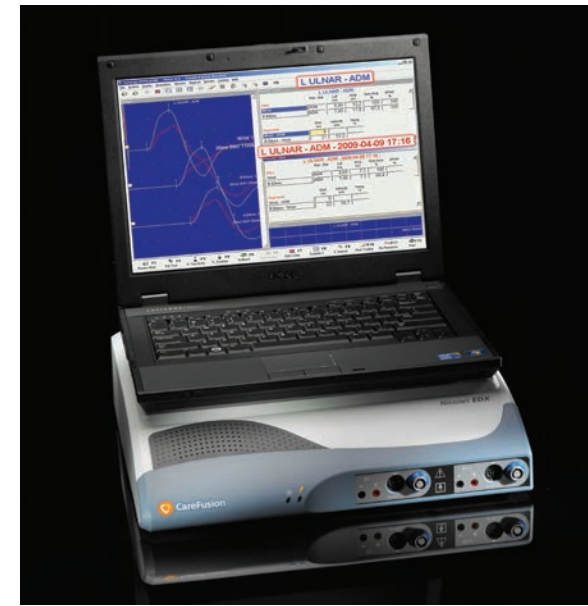


# Synergy On Nicolet™ EDX

Advancing electrodiagnostics and monitoring with the next generation system



Nicolet™

natus®  
neurology

The combined strength of Synergy software and Nicolet™ hardware has fused to create the next generation electrodiagnostic system from an EMG leader

The latest addition to the long and successful line of Synergy products excels in clinical functionality, signal quality, and flexibility

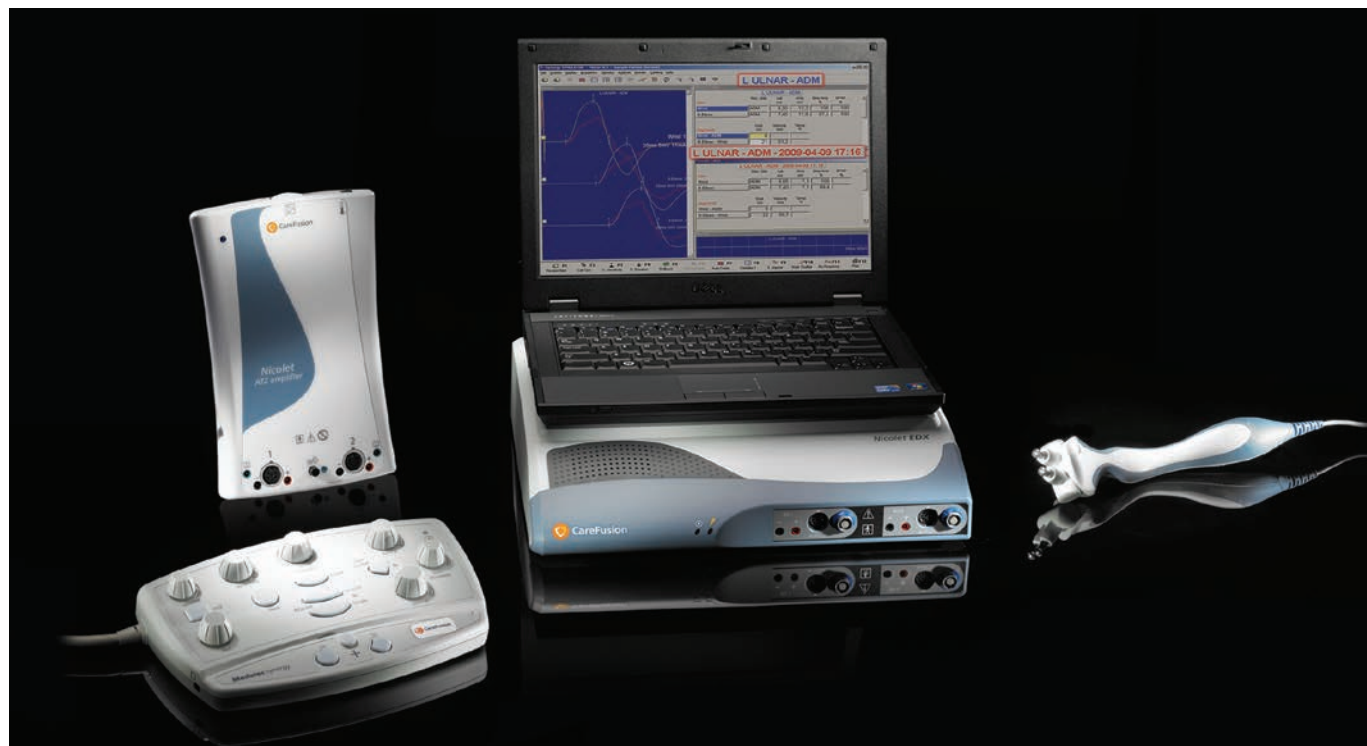
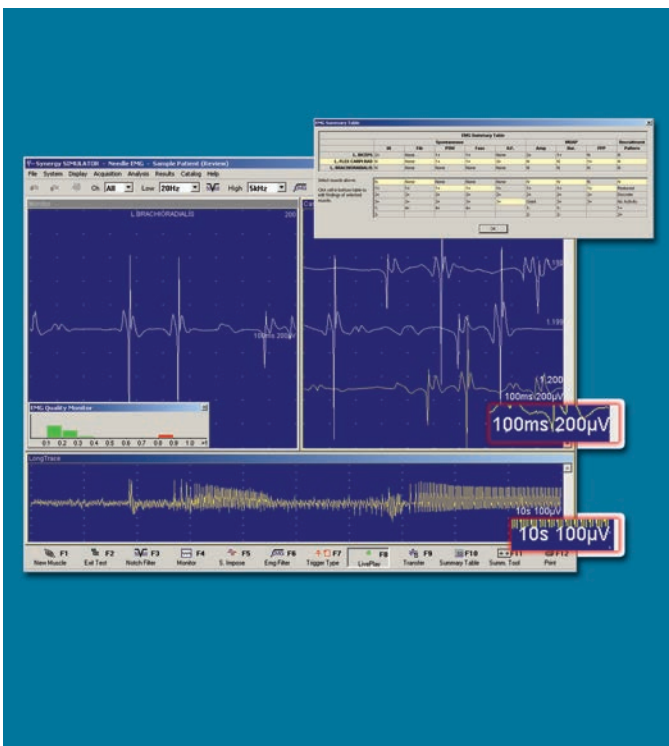
### Introducing the New Synergy On Nicolet EDX System

The Synergy On Nicolet EDX system from Nicolet combines state of the art technology with over 60 years of proven clinical knowledge and innovation to set new standards for EMG, EP and IOM testing.

Because it's based on the proven Synergy software, users can expect to benefit from a familiar clinical workflow and user interface together with full patient and protocol compatibility with existing Synergy products.

The rich Synergy feature set and clinical automation together with the high signal quality, artifact rejection, and environmental noise suppression of the Nicolet EDX system are intended to result in reduced examination time as well as patient discomfort.

The Synergy On Nicolet EDX delivers an electrodiagnostic platform powerful enough to satisfy the demanding needs of today and flexible enough to meet the anticipated needs of tomorrow.



## Designed to deliver flexibility without compromises



- Supports both the Comfort Probe and Comfort Probe Plus stimulator probes for maximal comfort and functionality.

- Flexible amplifier configuration ranging from 2 channels up to 8 channels.

- The 8 channel amplifier supports both non-switched and switched amplifier inputs that can use any of the 22 input connectors available on the amplifier or on the head box.



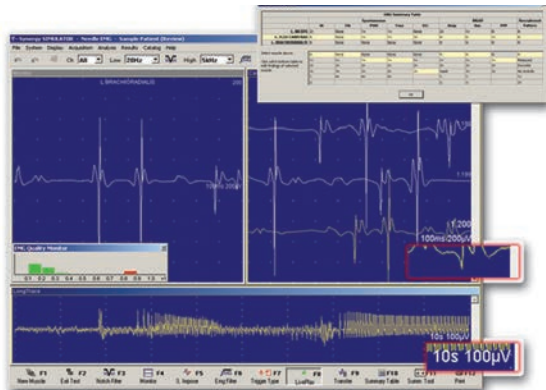
The Synergy On Nicolet EDX has been developed in close cooperation with physicians, technicians, and researchers across the world resulting in a system flexible and powerful enough to meet different needs without compromising on ease of use or quality.

### Customizing the Synergy On Nicolet EDX System

- Offers a wide variety of tests ranging from nerve conduction, electromyography, different evoked potential modalities, to intraoperative monitoring.
- Can be configured as a cart based or a mobile system.
- Can be used together with a Notebook or a Desktop PC.
- Can support two electrical stimulators, an auditory stimulator, and a visual stimulator.
- Two Trigger Inputs and Trigger Outputs paired with a very flexible triggering functionality ensure the necessary integration with many different types of external stimulators.
- Both on-line and off-line audio can be replayed on the integrated speaker or a user supplied speaker to provide maximal flexibility.
- External analysis systems can be connected to the live continuous data using either digital data or analog outputs.
- Many of the system features can be upgraded at the time of purchase or later when new requirements arise without sending back the equipment.

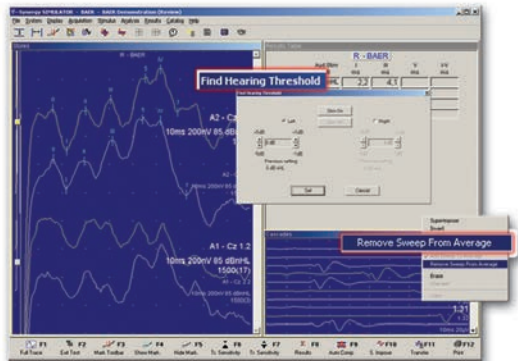
# Building on decades of software development and clinical feedback to deliver exceptional clinical functionality

The Synergy On Nicolet EDX System is powered by the newest version of the Synergy software delivering all the familiar features as well as a large number of improvements that will make testing even easier and more efficient.



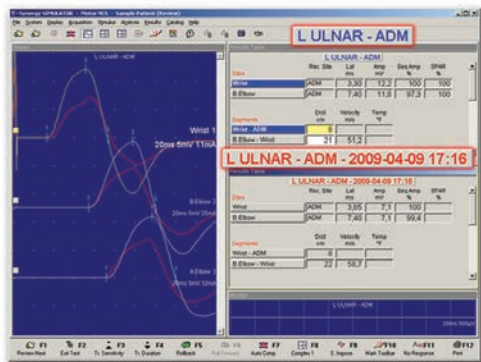
**Needle EMG**

- Dual time base
- Rastered traces
- Quality monitor



**Brain Stem Auditory Evoked Response**

- Test hearing threshold
- Replicate responses
- Automation and post acquisition filter



**Follow Up Nerve Conduction Study**

- Current results
- Results from 3 months prior

## Clinical Applications

The Synergy On Nicolet EDX provides a broad range of electrodiagnostic tests as well as the flexibility to support new clinical routines and research requirements. Each test is rich with features focused on delivering reliable results in the most efficient way while adapting to your workflow and reporting needs.

### Nerve Conduction Studies

- ▶ Integrated Motor and F-Waves to minimize examination time
- ▶ Roll Back and Roll Forward minimizes stimulation by saving all responses to allow selection of the best response
- ▶ Multiple replications can be done and averaged together to optimize results
- ▶ Select the responses to be averaged
- ▶ Define different Studies by combining various examinations into a single set to meet your testing needs
- ▶ Extensive NCS exams are available
  - Motor, Sensory, Combined Motor & Sensory, Anomalous Innervation
  - F-Waves, Blink Reflex, H Reflex
  - Repetitive Stimulation
  - Inching
  - Collision and Refractory Testing
  - Motor Unit Number Estimation (MPS)
- ▶ New optional Auto Stimulation program is available
  - Automatically finds the supramaximal response
  - New Combined Sensory Index (CSI)

### EMG

- ▶ Continuous EMG storage and replay
- ▶ On-line signal quality analysis with quality and rate meters
- ▶ User definable displays and workflow
- ▶ On-line and off-line EMG summary and reporting
- ▶ Integrated EMG examinations
  - Spontaneous Activity
  - Single motor unit analysis
  - Maximal Volitional Analysis
  - Quantitative EMG
  - Multi-MUP Analysis
  - Turns and Amplitude and frequency analysis test
- ▶ Single Fiber/Macro EMG Analysis
  - Maximal reanalysis and editing capabilities
  - Various types of analysis are available
    - Volitional SFEMG
    - Stimulated SFEMG
    - Fiber Density
    - Macro EMG

### Evoked Potentials

- ▶ Flexibility of choosing individual exams or a combined package
- ▶ Automatic marker placement
- ▶ Examination automation
- ▶ Multiple replications methods
- ▶ Easy and quick changes to parameters
- ▶ Five modes of EP testing
  - AEP with patient hearing threshold function
  - SEP
  - VEP
  - ERG/EOG
  - P300/CNV

### Support Software

- ▶ Reference Help for NCS Testing
  - Contains pictures and text for electrode and stimulator placement
  - Includes predefined reference values and educational DVD
- ▶ Report
  - Utilizes Microsoft Word
  - On-Line Report, continuously updated
  - Highly customizable for what is included
    - Numerical results
    - Wave forms
    - Left/right side comparisons
    - Highlighted results if outside the reference range
- ▶ Auto Summary
  - Optional report function
  - Automatically inserts user definable sentences into a report
  - Automatically summarizes all test results
- ▶ Producer
  - Capture images as well as videos of the acquisition screen
  - Can be exported and placed into training material, presentations, or procedure documentation
- ▶ Test Configuration Wizard
  - Easily creates and changes test protocols
- ▶ Reader
  - Convenient reviewing and reporting of results
- ▶ Networking
  - Extensive patient administration and networking functionality (NicVue)
  - Integrate into the hospital system (V-Link)

### Additional Testing

- ▶ Intra-Operative Monitoring (IOM)
  - Trends
  - Event annotation
  - Flexible stimulator set-up
- ▶ Autonomic Exams
  - R-R Interval / Valsalva Maneuver with breathing metronome
  - Sympathetic Skin Response (SSR) / Galvanic Skin Response (GSR)

## Nicolet EDX Hardware Components

Compact and flexible, the Nicolet EDX hardware is built for performance and quality.

### Compact Base Unit

- Houses electrical and auditory stimulators
- Integrated high quality speaker
- Connections to multiple stimulators and other devices
  - Control Panel
  - Electrical Stimulator Probes
  - Head Phones
  - LED Goggles
  - Temperature Probe
  - Reflex Hammer
  - Foot Switch
  - Single USB connection to computer
  - Analog Output
  - 2 Trigger Inputs
  - 2 Trigger Outputs
- Multiple System Functionality
  - Signal Analysis
  - Filtering
  - Triggering

### Scalable Features

- Easy to upgrade as testing needs increase
- 0, 1, or 2 Electrical Stimulators
- Auditory Stimulator
- Number of Activated Amplifier Channels

### Advanced Technology Amplifiers

- AT2 Amplifier
  - 2 high performance non-switching channels
- AT2+6 Amplifier
  - 2 high performance non-switching channels
  - 6 high performance switching channels
  - 22 input connections for switching channels
  - Built-In Features
    - Impedance
    - Calibration
    - Temperature Measurement

### Ergonomic Design

- Electrical Stimulator Probes
  - Comfortable to hold
  - Optimized to reach all test sites
  - Interchangeable probe heads
    - Multiple Sizes (adult or pediatric)
    - Multiple Orientations (angled, straight, or touch proof)
- Two Probes with Different Interfaces
  - Comfort Probe (RS10)
    - Indirect Interface
    - Controlled by the control panel or mouse (software)
  - Comfort Probe Plus (WR50)
    - Direct Interface
    - Control buttons on probe
    - Start/Stop stimulus
    - Change stimulus intensity, duration, and polarity
    - Move to next site

## Nicolet EDX System Features

### Synergy On Nicolet EDX

Fusing hardware expertise with advanced technology to power the next generation electrodiagnostic system



# Neuro Supplies and Accessories

Our comprehensive line of leading neuro supplies and accessories complement the performance offered by the Nicolet EDX system. We offer well-established and trusted brands like Nicolet™ and TECA® recognized for market leadership.



New Luer Lock  
MyoJect Needle



A Full Line of Disposable Adhesive Electrodes



Disposable NCV  
Kit with Leads

TECA Elite Disposable  
Concentric Needle Electrodes



# Nicolet – a leader in EMG solutions

The Nicolet business unit of Natus, headquartered in Middleton, Wisconsin, is a global market leader providing diagnostic and monitoring medical equipment for neurological and vascular markets, supplies and accessories as well as integrated connectivity solutions.

Our world-class customer support team is with you every step of the way to help you get the most out of your investment. With a large and experienced staff, we can provide you with the assistance you need, when you need it.

Customers of Nicolet include hospitals, alternate care sites, clinical laboratories, and physician and veterinarian practices in more than 100 countries. You can be reassured that every system meets the stringent standards that you expect.



# Nicolet™

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