Nicolet™ Viking EDX and Synergy EDX User Guide

Issued January 30, 2020

Version 21 or Newer
Indications for use statement

The Nicolet EDX is intended for the acquisition, display, analysis, storage, reporting, and management of electrophysiological information from the human nervous and muscular systems including:

- Nerve Conduction (NCS)
- Electromyography (EMG)
- Intra-Operative Monitoring including Electroencephalography (EEG)
- Evoked Potentials (EP) includes Visual Evoked Potentials (VEP), Auditory Evoked Potentials (AEP), Somatosensory Evoked Potentials (SEP)
- Electroretinography (ERG)
- Electrooculography (EOG)
- P300
- Contingent Negative Variation (CNV)
- Motor Evoked Potentials (MEP)

The Nicolet EDX may be used to determine autonomic responses to physiologic stimuli by measuring the change in electrical resistance between two electrodes (Galvanic Skin Response and Sympathetic Skin Response). Autonomic testing also includes assessment of RR Interval variability.

The Synergy EDX / Viking EDX software is used to detect changes in the functional state of the nervous system, for the location of neural structures during surgery and to support the diagnosis of neuromuscular disease or condition.

The listed modalities include overlap in functionality. In general,

- Nerve Conduction Studies measure the electrical responses of the nerve.
- Electromyography measures the electrical activity of the muscle.
- Evoked Potentials measure electrical activity from the Central Nervous System.

The Nicolet Synergy EDX / Viking EDX software is intended to be used by a qualified healthcare provider.
## Contact information

<table>
<thead>
<tr>
<th>Natus Neurology Incorporated</th>
<th>Technical Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>3150 Pleasant View Road</td>
<td>Domestic</td>
</tr>
<tr>
<td>Middleton, WI USA 53562-3530</td>
<td>Natus Neurology Incorporated</td>
</tr>
<tr>
<td>608-829-8500</td>
<td>3150 Pleasant View Road</td>
</tr>
<tr>
<td>1 800-356-0007</td>
<td>Middleton, WI USA 53562</td>
</tr>
<tr>
<td>Fax: 608-829-8589</td>
<td>1-800-356-0007</td>
</tr>
<tr>
<td><a href="http://www.Natus.com">www.Natus.com</a></td>
<td><a href="mailto:madison.helpdesk@natus.com">madison.helpdesk@natus.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Natus EU Authorized Representative</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natus Manufacturing Limited</td>
<td>Natus Neurology Incorporated</td>
</tr>
<tr>
<td>IDA Business Park</td>
<td>Phone: 0049 (0) 180 501 5544</td>
</tr>
<tr>
<td>Gort, Co.Galway, Ireland</td>
<td>Fax: 0049 (0) 89 83942777</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:service.europe@natus.com">service.europe@natus.com</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.Natus.com">www.Natus.com</a></td>
</tr>
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## Labels and symbols

The following labels and symbols may be affixed to the **Nicolet EDX** system:

| ![Label](image) | **When applied on device:** Attention: Consult Accompanying Documentation (ISO 7000-0434A)  
**When used in documentation:** Caution, Warning or Precaution follows. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Label" /></td>
<td>Consult Operating Instructions. Failure to follow operating instructions could place the patient or operator at risk (ISO 7010 M002). Image on blue background.</td>
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<tr>
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<td>Consult Operating Instructions. (ISO 7000-1641)</td>
</tr>
<tr>
<td><img src="image" alt="Label" /></td>
<td>European Authorized Representative</td>
</tr>
</tbody>
</table>
| ![Label](image) | **Natus Neurology Incorporated**  
3150 Pleasant View Road  
Middleton, WI USA 53562  
608-829-8500  
1 800-356-0007  
Fax: 608-829-8589  
[www.natus.com](http://www.natus.com) |
| ![Label](image) | Disposal at end of operating life instructions.  
Medical Device Regulation (MDR) product certified to comply to EC Regulation 2017/745. |
| ![Label](image) | **CE Mark and Notified Body** |
| ![Label](image) | Type BF equipment. |
| ![Label](image) | Class II device. |
| ![Label](image) | **RX Only** **CAUTION:** USA Federal law restricts this device to sale or on the order of a licensed Neurology practitioner. |
Read the safety reference guide

Please read the Additional Information and Safety Notes for Assorted Nicolet Brand Products Reference Guide on CD furnished with your Nicolet EDX system thoroughly, paying special attention to the Safety information before applying power to and using your Nicolet system.

Electromagnetic Compatibility (EMC)

⚠️ WARNING Please refer to the Electromagnetic Compatibility Reference Guide on CD furnished with your Nicolet EDX system for information concerning your Nicolet EDX system.

Safety summary

In this manual, two labels identify potentially dangerous or destructive conditions and procedures:

⚠️ WARNING

The WARNING label identifies conditions or practices that may present danger to the patient and/or user.

⚠️ CAUTION

The CAUTION label identifies conditions or practices that could result in damage to the equipment.

**NOTE:** Notes help you identify areas of possible confusion and avoid potential problems during system operation.

⚠️ WARNING

Do NOT use outside of the published specification ranges. Use of device outside of the specified ranges may result in inaccurate results.
Inspecting the system

Routinely check the instrument for exterior damage.
Follow your medical facilities safety guidelines.

Disposal at the end of operating life

Natus is committed to meeting the requirements of the European Union WEEE (Waste Electrical and Electronic Equipment) Regulations 2014. These regulations state that electrical and electronic waste must be separately collected for the proper treatment and recovery to ensure that WEEE is reused or recycled safely. In line with that commitment Natus may pass along the obligation for take back and recycling to the end user, unless other arrangements have been made. Please contact us for details on the collection and recovery systems available to you in your region at www.natus.com

Electrical and electronic equipment (EEE) contains materials, components and substances that may be hazardous and present a risk to human health and the environment when WEEE is not handled correctly. Therefore, end users also have a role to play in ensuring that WEEE is reused and recycled safely. Users of electrical and electronic equipment must not discard WEEE together with other wastes. Users must use the municipal collection schemes or the producer/importers take-back obligation or licensed waste carriers to reduce adverse environmental impacts in connection with disposal of waste electrical and electronic equipment and to increase opportunities for reuse, recycling and recovery of waste electrical and electronic equipment.

Equipment marked with the below crossed-out wheeled bin is electrical and electronic equipment. The crossed-out wheeled bin symbol indicates that waste electrical and electronic equipment should not be discarded together with unseparated waste but must be collected separately.

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Middleton, WI USA 53562-3530
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<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indications for use statement</td>
<td>1-a</td>
</tr>
<tr>
<td>Contact information</td>
<td>1-b</td>
</tr>
<tr>
<td>Labels and symbols</td>
<td>1-c</td>
</tr>
<tr>
<td>Read the safety reference guide</td>
<td>1-d</td>
</tr>
<tr>
<td>Electromagnetic Compatibility (EMC)</td>
<td>1-d</td>
</tr>
<tr>
<td>Safety summary</td>
<td>1-d</td>
</tr>
<tr>
<td>Inspecting the system</td>
<td>1-e</td>
</tr>
<tr>
<td>Disposal at the end of operating life</td>
<td>1-e</td>
</tr>
<tr>
<td>Nicolet EDX Copyright</td>
<td>1-f</td>
</tr>
<tr>
<td>Software copyright protection</td>
<td>1-g</td>
</tr>
<tr>
<td>Introduction</td>
<td>1-3</td>
</tr>
<tr>
<td>Technical description</td>
<td>1-3</td>
</tr>
<tr>
<td>Installation and servicing instructions</td>
<td>1-3</td>
</tr>
<tr>
<td>Device continuity maintenance and installation test</td>
<td>1-3</td>
</tr>
<tr>
<td>Specification and accuracy information</td>
<td>1-3</td>
</tr>
<tr>
<td>Nicolet EDX amplifier and system essential performance</td>
<td>1-4</td>
</tr>
<tr>
<td>Protective and equipment classifications</td>
<td>1-4</td>
</tr>
<tr>
<td>Intended operator</td>
<td>1-4</td>
</tr>
<tr>
<td>Intended use</td>
<td>1-4</td>
</tr>
<tr>
<td>Contraindications of use</td>
<td>1-5</td>
</tr>
<tr>
<td>Using this guide</td>
<td>1-5</td>
</tr>
<tr>
<td>About the system</td>
<td>1-5</td>
</tr>
<tr>
<td>Synergy/Viking Software - Warning and Error Codes</td>
<td>1-5</td>
</tr>
<tr>
<td>Cleaning</td>
<td>1-6</td>
</tr>
<tr>
<td>Connecting the system components</td>
<td>1-6</td>
</tr>
<tr>
<td>System Basics</td>
<td>2-1</td>
</tr>
<tr>
<td>Using the Easy Riser tray</td>
<td>2-1</td>
</tr>
<tr>
<td>Viking EDX control panel</td>
<td>2-3</td>
</tr>
<tr>
<td>Synergy EDX control panel</td>
<td>2-8</td>
</tr>
<tr>
<td>EMG control panel</td>
<td>2-10</td>
</tr>
<tr>
<td>AT2 and AT2+6 amplifier</td>
<td>2-13</td>
</tr>
<tr>
<td>ECR-16 amplifier</td>
<td>2-15</td>
</tr>
<tr>
<td>HB-6 headbox (AT2+6)</td>
<td>2-16</td>
</tr>
<tr>
<td>HB-7 headbox (AT2+6)</td>
<td>2-16</td>
</tr>
<tr>
<td>HB-1 and HB-2 headbox (ECR16)</td>
<td>2-17</td>
</tr>
<tr>
<td>Nicolet EDX electrical stimulator probes</td>
<td>2-18</td>
</tr>
<tr>
<td>Comfort Probe Plus stimulator icons</td>
<td>2-18</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>SP1/SP2 Stim-Switching Units</td>
<td>2-19</td>
</tr>
<tr>
<td>Nicolet EDX Base Unit rear panel icons</td>
<td>2-20</td>
</tr>
<tr>
<td>Nicolet EDX Base Unit front panel icons</td>
<td>2-22</td>
</tr>
<tr>
<td>Nicolet EDX Base Unit label icons</td>
<td>2-23</td>
</tr>
<tr>
<td>Powering the system</td>
<td>2-24</td>
</tr>
<tr>
<td>Turning the system on</td>
<td>2-24</td>
</tr>
<tr>
<td>Turning the printer on and off</td>
<td>2-24</td>
</tr>
<tr>
<td>Logging in</td>
<td>2-25</td>
</tr>
<tr>
<td>Launching the system software</td>
<td>2-25</td>
</tr>
<tr>
<td>Home page menus</td>
<td>2-26</td>
</tr>
<tr>
<td>Test screen controls</td>
<td>2-27</td>
</tr>
<tr>
<td>Header bar</td>
<td>2-27</td>
</tr>
<tr>
<td>Menu bar</td>
<td>2-27</td>
</tr>
<tr>
<td>Toolbar</td>
<td>2-27</td>
</tr>
<tr>
<td>Quick Access bar</td>
<td>2-28</td>
</tr>
<tr>
<td>Function Key Area</td>
<td>2-28</td>
</tr>
<tr>
<td>Using the Acquisition Setup panel</td>
<td>2-29</td>
</tr>
<tr>
<td>Displaying the Acquisition Set panel</td>
<td>2-29</td>
</tr>
<tr>
<td>Setting individual channels on the Acquisition Setup panel</td>
<td>2-30</td>
</tr>
<tr>
<td>Setting all channels on the Acquisition Setup panel</td>
<td>2-30</td>
</tr>
<tr>
<td>Applying Filter settings to all channels from the Toolbar</td>
<td>2-31</td>
</tr>
<tr>
<td>Applying Filter settings to a single channel from the Toolbar</td>
<td>2-31</td>
</tr>
<tr>
<td>Exiting the software</td>
<td>2-32</td>
</tr>
<tr>
<td>Turning the Viking EDX / Synergy EDX system off</td>
<td>2-32</td>
</tr>
<tr>
<td>Desktop system</td>
<td>2-32</td>
</tr>
<tr>
<td>Portable system</td>
<td>2-32</td>
</tr>
<tr>
<td>Patient Information</td>
<td>3-3</td>
</tr>
<tr>
<td>The Patients screen</td>
<td>3-3</td>
</tr>
<tr>
<td>Creating a new patient information record</td>
<td>3-3</td>
</tr>
<tr>
<td>Editing a patient information record</td>
<td>3-3</td>
</tr>
<tr>
<td>Editing a visit record</td>
<td>3-4</td>
</tr>
<tr>
<td>Deleting a patient information record</td>
<td>3-4</td>
</tr>
<tr>
<td>About NicVue (option)</td>
<td>3-5</td>
</tr>
</tbody>
</table>
Performing an Exam
Summary of steps .........................................................................................................................................................4-3
Notes ..............................................................................................................................................................................4-3
Example record window summaries ............................................................................................................................4-4
  Viking EDX Motor Nerve Conduction Study ...........................................................................................................4-4
  Synergy EDX Motor Nerve Conduction Study .........................................................................................................4-5
Setting up the system ..................................................................................................................................................4-6
  Getting started ..........................................................................................................................................................4-6
  Turning on the system ..............................................................................................................................................4-6
  Starting / exiting NicVue ........................................................................................................................................4-6
Example Motor Nerve Conduction Test ..................................................................................................................4-7
  Motor NCS electrode placement .............................................................................................................................4-8
  Sensory NCS electrode placement ..........................................................................................................................4-8
  Connect the stimulating electrodes ..........................................................................................................................4-8
  Create / select a patient record ...............................................................................................................................4-9
  Select a test ..............................................................................................................................................................4-10
  Acquire the data .....................................................................................................................................................4-11
Saving test data .........................................................................................................................................................4-12
Creating / updating a report .....................................................................................................................................4-12
Printing a standard data report ..................................................................................................................................4-12
Capturing screen display images and videos ..........................................................................................................4-13
  Capturing a screen display image ............................................................................................................................4-13
  Capturing a test screen video ..................................................................................................................................4-13
  Reviewing a captured test screen video ................................................................................................................4-13

Common Procedures
  Adding new tests to a previous visit ..........................................................................................................................5-3
  Adding new data to a previous test ............................................................................................................................5-3
  Changing the Stimulus Duration ..............................................................................................................................5-4
  Changing the Sensitivity (SNS) ..............................................................................................................................5-4
  Changing the Stimulus Rate ................................................................................................................................5-5
  Selecting Repetitive or Single sweep acquisition ................................................................................................5-5
  Placing markers ......................................................................................................................................................5-6
  Changing the screen display ..................................................................................................................................5-8
  Activating markers ..................................................................................................................................................5-9
  Superimposing traces .............................................................................................................................................5-9
  Calculating Conduction Velocities .........................................................................................................................5-10
  Measuring patient temperature .............................................................................................................................5-10
  Changing the nerve name ......................................................................................................................................5-11
  Viewing the nerve list .............................................................................................................................................5-11
  Choosing a side for the exam ................................................................................................................................5-11
  Erasing data ...........................................................................................................................................................5-12
  Capturing a video ...................................................................................................................................................5-13
  Setting up a report ..................................................................................................................................................5-13
Backing up/restoring settings and importing legacy Viking Settings Setup

Backing up settings and test folders .................................................................................................................. 6-3
Restoring settings and test folders .................................................................................................................. 6-3
Importing legacy Viking settings ...................................................................................................................... 6-4
  Importing all Viking Tests and System Setup .................................................................................................. 6-4
  Importing only the selected Viking Setups ..................................................................................................... 6-4
  Importing only the Viking System Setup ....................................................................................................... 6-5
1 Introduction
Technical description

Your Nicolet EDX allows you to perform a wide range of Nerve Conduction Studies (NCS), Electromyography (EMG), Evoked Potential (EP) Studies and Autonomic Studies as well as Multimodality Programs such as Intra-operative Monitoring (IOM). Separate software programs and optional accessories let you customize your Nicolet EDX to meet your specific clinical and O.R. monitoring needs.

Installation and servicing instructions

Device continuity maintenance and installation test

⚠️WARNING

During installation, assembly and operation, some protective ground connection points are susceptible to becoming electrically detached or not properly connected. This can pose a safety hazard to both the user and patient.

It is recommended/required that you perform regular electrical continuity tests from exposed conductive materials on the medical system to the protective ground on the medical system. Regular testing will help ensure that proper protective grounding is maintained. This test should always be performed after installation and maintenance. Additionally, this test should be performed on a regular maintenance basis.

No part of the system should be serviced while in use with a patient.

Maintenance and Service only while not in use with a patient. Disconnect and remove the system from the patient vicinity before proceeding with service or maintenance.

There are no field serviceable assemblies. Replacement units and sub-assemblies are available through your Natus service provider.

Specification and accuracy information

For specification details, see the system applicable specification sheet 169-439400 or 169-439500.

For accuracy information see Additional Information and Safety Guide 269-594705.
Nicolet EDX amplifier and system essential performance

The Nicolet EDX amplifier and system is designed to function under a wide range of environmental conditions without any compromise in performance specifications.

In the event that an environmental artifact (e.g. ESD, line voltage fluctuations, etc.) is of sufficient intensity and/or duration to adversely affect system performance, the system is designed to detect this condition and send a message notifying the operator that an adverse event has occurred. Once the operator has cleared this message, the system will indicate that acquisition can resume with the settings restored to the previous state.

If this type of condition causes persistent messages, please contact your local service representative.

Protective and equipment classifications

1. This system is intended for continuous operation and has an IEC 60601-1 protective classification of Class I, Type BF and Type B applied parts, ordinary equipment, not suitable for use in the presence of flammable anesthetics.

2. The MDD equipment classification is IIb.

Intended operator

The Nicolet EDX with Synergy / Viking software is intended to be used by a qualified healthcare provider.

Intended use

See the Indications for use as listed in the beginning of this guide. The system is expected to typically be in use for 8-10 hours per day. It would be expected that while in use (patient connected, the system would be interacted with by qualified healthcare personnel performing the various studies listed in the indications for use.
**Contraindications of use**

There are no known contraindications under normal clinical use for EMG/NCV/EP.

Please see Intra-Operative Safety Guide 269-48801 and Additional Information and Safety Guide 269-594705 for possible contraindications of use under certain conditions.

**Using this guide**

This guide provides the basic information needed to operate your Nicolet EDX. It includes instructions for creating patient files, working with studies and exams and for performing a simple motor nerve conduction (MNC) study.

Your system includes a computer on which the Nicolet EDX software program is installed.

**About the system**

Nicolet EDX systems feature a dedicated control panel and easy-to-use Windows-based interfaces to simplify operation.

Innovative software features and an intuitive interface simplify operation. The Automated-Study feature allows you to link and perform assorted protocols with a simple button press, producing faster, more accurate test results and improved repeatability. The Anatomy Database allows you to select individual muscles or nerves for exams and view innervation roots.

**Synergy/Viking Software - Warning and Error Codes**

In the Synergy/Viking Application, errors and other informational messages are designed to be self-explanatory.

However, additional information and suggested user actions are provided in document 022210 found on the User Guide disk 482-651400.
Cleaning

⚠️ WARNING Disconnect all leads and electrodes from the patient before proceeding with cleaning the equipment.

All external parts of the assembly can be wiped down with the following:

⚠️ CAUTION Chemical contact will be limited to chemicals specified below to clean the assembly only. Other chemicals may or may not affect the device, but do not fall under tested chemicals for the assembly.

- Water
- Isopropyl Alcohol (70-90% concentration in water)
- PDI SaniClothPlus #Q89702
- HB Quat (3M)
- Mild soap solution such as Basis, Cetaphil, Dove in water solution
- Ethyl alcohol (70-90% concentration)
- A solution of 1 part household bleach (5-6% concentrate sodium hypochlorite) and 50 parts water.

Connecting the system components

Please refer to the Nicolet EDX Installation Guide for cabling instructions.
This chapter introduces you to the basic hardware and software controls used to operate your Nicolet EDX.

**Using the Easy Riser tray**

**To raise:** Grasp sides of unit as shown. Move to desired height.

**To lower:** Grasp sides of unit as shown. Tip UP front of unit. Move to desired height.

**To set tilt:** Release wand (A). Adjust angle. Lock wand.

A: Lock wand.
Viking EDX control panel

The control panel is active in all Viking EDX software modes. However, it is not active in NicVue, the Backup/Restore mode, the Report Program, the internet, or in any Windows application. In these modes, use the mouse or keyboard.

The control panel includes two types of touch-keys; the hardkeys and softkeys and three types of adjustment dials; the stimulator level dials, audio volume dial, and the cursor wheel.

Hardkeys

The hardkeys are touch-panel keys with a single function. Each hardkey is labeled with its purpose and are operational only in relevant modes.

Softkeys

The softkeys are the 12 color-coded touch-panel keys on the control panel. Softkey functions change according to the mode you are working in and are designated by the corresponding colored buttons in the **Function Key Area** displayed in the lower portion of the screen display.
Adjustment dials

The adjustment dials include the Volume dial, located on the upper left corner and Stimulus Level dials located on the upper right. Using these dials, you can adjust the speaker sound level and the electrical stimulus intensity level within predetermined ranges. When lit, the LED indicator lights, located below each dial, signify that the unit stimulator is on. The mouse can also be used for the same functions.

Cursor wheel

The cursor wheel controls the position of the cursor on the screen. You can also use this wheel to highlight desired information in patient, settings and exam files.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Volume</td>
<td>Increases or decreases the speaker volume.</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Save</td>
<td>Stores settings and/or test data on the hard disk.</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Key Line</td>
<td>Selects the top Function Key Area.</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Functions</td>
<td>When in an exam mode, displays the data manipulation functions (e.g., baseline correct, smooth, trace move, trace delay).</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Softkeys</td>
<td>The functions of these keys change according to the selected test or process.</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Stimulator 1</td>
<td>Displays the stimulator 1 control options; stimulator mode (console or remote), type of stimulus (current or voltage) and the maximum stimulus intensity.</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Stimulator 2</td>
<td>Displays the stimulator 2 control options; stimulator mode (console or remote), type of stimulus (current or voltage) and the maximum stimulus intensity.</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Stimulator Level 1</td>
<td>When in the Console mode (press a Stimulator key and then the Mode softkey), adjusts the stimulus intensity for Stimulator 1.</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Stimulator Level 2</td>
<td>When in the Console mode (press a Stimulator key and then the Mode softkey), adjusts the stimulus intensity for Stimulator 2.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>System Basics</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>Cursor Wheel</td>
<td>Adjusts the position of the active marker on the selected waveform. Also used to highlight patient, settings and file names in the Patients Directory, Select Exam and Exam Review windows.</td>
<td></td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>Marker 2 (advance)</td>
<td>Activates Cursor 2 and advances it from one waveform to another. Also allows you to activate a special Function Key Area line that allows you to select predefined indicators at specific locations on the recorded waveforms.</td>
<td></td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>Latency/Amplitude</td>
<td>Toggles between the latency (</td>
<td>) and amplitude ( — ) cursors as the active cursor.</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Trace Position (advance)</td>
<td>Switches the vertical mode On and Off, which allows you to move waveforms vertically on the screen display using the Cursor Wheel. In EMG, use this key to scroll through raw data.</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>Cancel/Disable</td>
<td>Alternates between stopping certain multilevel commands and disabling the Cursor Wheel from moving the markers and cursors. Once you choose an option from the first command level, you cannot stop the action.</td>
<td></td>
</tr>
<tr>
<td><strong>O</strong></td>
<td>Trigger 2 Vert/Horiz</td>
<td>Positions the second trigger marker in the SFEMG test. Also sets the window (dual level) trigger in the EMG exams: SPA and AMUP.</td>
<td></td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>Superimpose</td>
<td>Overlays the selected waveforms on the screen display.</td>
<td></td>
</tr>
<tr>
<td><strong>Q</strong></td>
<td>Trigger 1</td>
<td>Sets the trigger position of the first trigger marker. Press repeatedly to toggle between signal and dual level stimulus triggering in the EMG exams: SPA and AMUP.</td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>Marker 1 (advance)</td>
<td>Activates Cursor 1 and advances it from one waveform to another. Also allows you to activate a special Function Key Area line that allows you to select predefined indicators at specific locations on the recorded waveforms.</td>
<td></td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>Trace</td>
<td>Activates the next or previous trace number for collecting data. In some tests (e.g., MNC, SNC and ANS), sequences through the selected sets of trace numbers. Press to return to the previous set or trace and to advance to the next set or trace.</td>
<td></td>
</tr>
<tr>
<td><strong>T</strong></td>
<td>Stimulator Active LED</td>
<td>Blinks when the stimulator(s) are active. Blinking of the LED is not synchronized with the stimulus level.</td>
<td></td>
</tr>
<tr>
<td><strong>U</strong></td>
<td>Tab</td>
<td>Advances the cursor to the next text line or box on the screen display.</td>
<td></td>
</tr>
</tbody>
</table>
### Sensitivity
Changes the amplifier sensitivity for the recorded data. Press ▲ to numerically increase the sensitivity, which decreases the size of the displayed waveforms. Press ▼ to numerically decrease the sensitivity, which increases the size of the displayed waveforms. These keys can also be used as navigational tools in lists.

### Time Base
Changes the time base for the displayed trace. Press ▶ to increase the time base, which compresses the waveform(s) and increases the total sweep time. Press ▴ to decrease the time base, which expands the waveform(s) and decreases the total sweep time. These keys can also be used as navigational tools in lists.

### Back Space
If you make a mistake while entering numeric data, erases the last character entered.

### Enter
Enters the numeric data you typed into the system.

### Distance
For conduction velocity calculations in NCS Exam modes, press this key and enter the distance (in mm) between the stimulation sites.

### Numeric keypad
Enters numeric data for test calculations and patient files. Also selects the window displayed in the Select Exam mode by pressing:

- 4 = EP
- 5 = IOM
- 6 = MMP
- 1 = Studies
- 2 = NCS
- 3 = EMG
- 0 = To Do

### Calibrate Impedance
Toggles between turning on the amplifier calibration pulse and checks the electrode impedances or turns off both functions.

**WARNING** Do not measure the impedance of needle electrodes with needles positioned in the patient or with electrodes in contact with your patient’s cornea to guard against patient injury.

**CAUTION** Measuring the impedance of a single fiber needle electrode may result in needle failure.

### Screen Copy
Prints the screen display when in any exam mode.

### Average
Starts or stops the averager.

### Notepad
Displays the EMG Notepad when in an EMG exam mode or when viewing the Exam Review window.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>System Basics</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>![Switch icon]</td>
<td><strong>Switch</strong> Starts and stops stimulation. In some tests, it may start the stimulator and data acquisition automatically.</td>
</tr>
<tr>
<td>7</td>
<td>![Delete icon]</td>
<td><strong>Delete</strong> Erases the selected waveforms on the Record screen display. Follow the on-screen prompt to select which waveforms you want to delete.</td>
</tr>
<tr>
<td>8</td>
<td>![Select Anatomy icon]</td>
<td><strong>Select Anatomy</strong> When in any exam mode, displays the Select Anatomy for Settings window from which you select the name of the muscle or nerve for examination.</td>
</tr>
<tr>
<td>9</td>
<td>![Next Exam icon]</td>
<td><strong>Next Exam</strong> Stores the current exam data automatically and selects the next exam mode on the Studies list. If not performing a study, displays the Select Exam window.</td>
</tr>
<tr>
<td>10</td>
<td>![Select Exam icon]</td>
<td><strong>Select Exam</strong> Displays the Select Exam window to choose a different nerve or muscle settings file and/or a different exam type.</td>
</tr>
<tr>
<td>11</td>
<td>![Side icon]</td>
<td><strong>Side</strong> Selects the exam side, left or right.</td>
</tr>
<tr>
<td>12</td>
<td>![Settings icon]</td>
<td><strong>Settings</strong> Displays the Settings Overview window or Page One of the currently active settings file, which contains the parameters available for the current test.</td>
</tr>
<tr>
<td>13</td>
<td>![Waveforms icon]</td>
<td><strong>Waveforms</strong> Returns you to the current test record mode and displays the first Function Key Area line for that mode.</td>
</tr>
<tr>
<td>14</td>
<td>![Exam Overview icon]</td>
<td><strong>Exam Overview</strong> Displays the Exam Review window, which lists all data files stored by session on the Viking EDX hard drive. You can also display the ToDo/Done list from this window.</td>
</tr>
<tr>
<td>15</td>
<td>![Patient icon]</td>
<td><strong>Patient</strong> Displays the Viking EDX or NicVue Patient Information window, from which you can modify an existing patient record or create a new patient file.</td>
</tr>
<tr>
<td>16</td>
<td>![Report icon]</td>
<td><strong>Report</strong> When in a test mode, displays the Report MSW program from which you can generate a comprehensive report.</td>
</tr>
</tbody>
</table>
Nicolet EDX

Synergy EDX control panel

The Synergy EDX control panel provides a single control operation for setting essential parameters during a patient examination. The mouse is not active. You should use a mouse connected to the USB port of the computer.

The control panel is active in all Synergy EDX software modes. However, it is not active in NicVue, the Backup/Restore mode, the Report Program, the internet, or in any Windows application. In these modes, use the mouse or keyboard.

**IMPORTANT:**
The Electrical Stimulator outputs are disabled when the Synergy EDX Control Panel is connected to an EDX Unit.

**Adjustment dials**

The adjustment dials include the **Volume**, **Sensitivity**, **Sweep Duration**, **Stim A** (IES-1 amplitude), **Stim B** (IES-2 amplitude), and **Stim Duration** and **Stimulus Level** dials located on the upper right.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|   |   |   | Volume
| Rotate to change the level of the audio output of the input signal. Set it to zero for no audio output. |
| B | uV/DIV |   |
|   |   | Sensitivity
| Rotate to adjust the display sensitivity of the selected trace or traces. If no trace is selected (to deselect a trace, click away from it), the sensitivity of all the traces in the current test is changed. |
| C | M- |   |
|   |   | Erase
| Press to erase the selected trace or traces to collect a fresh set of data in the same store. |
| D | ms-s |   |
|   |   | Sweep Duration
| Rotate to adjust the acquisition sweep duration for the active trace(s). Once data has been acquired, you can also increase or decrease the sweep duration for selected traces. |
| E | M+ |   |
| F |   | Acquire On/Off
| Press to set Acquire ON. Press again to set Acquire OFF. |
|   |   | Acquire Single
<p>| Press once to deliver a stimulus and acquire a response. If you hold down this button for more than 1 second, Acquisition is locked on. Press again to stop Acquisition. |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G</strong></td>
<td><strong>Stim B</strong></td>
<td>Rotate to adjust the amplitude of the external stimulus. Stimulus Intensity is displayed on the tool bar and also on the Status Panel.</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td><strong>Green Light</strong></td>
<td>Indicates the control panel has power.</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td><strong>Electrical Stim.</strong></td>
<td>Disabled when Control Panel is used on EDX.</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td><strong>Stim. Duration</strong></td>
<td>Rotate to adjust the duration (pulse width) of the stimulus.</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td><strong>Stim. A</strong></td>
<td>Rotate to adjust the intensity of the internal stimulus. Stimulus Intensity is displayed on the tool bar and also on the Status Panel.</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td><strong>Stim. On/Off</strong></td>
<td>Press to toggle Stimulus On and Off, without acquiring. If Acquire is On, pushing this button has no affect.</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td><strong>Right Button</strong></td>
<td>Not active.</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td><strong>Pointing Device</strong></td>
<td>Not active.</td>
</tr>
<tr>
<td><strong>O</strong></td>
<td><strong>Left Button</strong></td>
<td>Not active.</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td><strong>Next</strong></td>
<td>Push to move to the next site in NCS and EMG tests.</td>
</tr>
<tr>
<td><strong>Q</strong></td>
<td><strong>Fn1</strong></td>
<td>Programmable via the Display menu to control Marker, Trigger or Cursor.</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td><strong>Fn2</strong></td>
<td>Programmable via the Display menu to control Averager On/Off, Record Cursor, Trigger Polarity, EMG Staging.</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td><strong>Increase/Decrease</strong></td>
<td>Rotate knob to increase/decrease parameter.</td>
</tr>
</tbody>
</table>
Nicolet EDX

EMG control panel

The EMG control panel provides a single control operation for setting essential parameters during a patient examination.

The control panel is active in all Viking/Synergy EDX software modes. Except for the mouse functions (N, D, L), the Control panel is not active in NicVue, the Backup/Restore mode, the Report Program, or in any Windows application. In these modes, use the mouse or keyboard.

<table>
<thead>
<tr>
<th>A</th>
<th>Battery charge</th>
<th>Not implemented at this time</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Volume</td>
<td>Increases or decreases the speaker volume. Press knob to mute/unmute volume.</td>
</tr>
<tr>
<td>C</td>
<td>Stimulus intensity</td>
<td>Adjust the stimulus intensity. Press the knob to start/stop stimulation.</td>
</tr>
<tr>
<td>D</td>
<td>Mouse</td>
<td>Left mouse click.</td>
</tr>
<tr>
<td>E</td>
<td>Average</td>
<td>Starts or stops the averager.</td>
</tr>
<tr>
<td>F</td>
<td>Repetitive stimulus</td>
<td>Starts repetitive stimulus. Press button again or press the Single Stimulus button to stop.</td>
</tr>
<tr>
<td>G</td>
<td>Distance</td>
<td>Activates Distance entry mode.</td>
</tr>
</tbody>
</table>
The keypad (H below) is multifunctional.
Enters numerical values when in a numerical entry mode (e.g., distance).
Selects assigned function when not in a numerical entry mode.

<table>
<thead>
<tr>
<th>Button</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 7</td>
<td>Stimulus duration Numbers 4 and 7</td>
</tr>
<tr>
<td>5 8</td>
<td>Waveform select Numbers 5 and 8</td>
</tr>
<tr>
<td>9</td>
<td>Marker (Advance) Number 9</td>
</tr>
<tr>
<td>6</td>
<td>Trigger (Activate) Number 6</td>
</tr>
<tr>
<td>1</td>
<td>Fn1 Number 1</td>
</tr>
<tr>
<td>2</td>
<td>Fn2 Number 2</td>
</tr>
<tr>
<td>3</td>
<td>Impedance check Number 3</td>
</tr>
<tr>
<td>0</td>
<td>Word reports Number 0</td>
</tr>
<tr>
<td></td>
<td>Screen copy</td>
</tr>
<tr>
<td></td>
<td>Enter</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
</tr>
</tbody>
</table>

**Stimulus duration**
- Numbers 4 and 7
  - 4: Increase stimulus duration.
  - 7: Decrease stimulus duration.

**Waveform select**
- Numbers 5 and 8
  - 5: Select the next waveform.
  - 8: Select the previous waveform.

**Marker (Advance)**
- Number 9
  - Advance to the next marker.

**Trigger (Activate)**
- Number 6
  - Activate a trigger.

**Fn1**
- Number 1
  - Programmable via the Hardware Controls Setup menu, per test type.

**Fn2**
- Number 2
  - Programmable via the Hardware Controls Setup menu, per test type.

**Impedance check**
- Number 3
  - Start/end electrode impedance check.
  - **WARNING** Do not measure the impedance of needle electrodes with needles positioned in the patient or with electrodes in contact with your patient’s cornea to guard against patient injury.
  - **CAUTION** Measuring the impedance of a single fiber needle electrode may result in needle failure.

**Word reports**
- Number 0
  - Activates/deactivates Word reports when not in a numeric entry mode.

**Screen copy**
- Prints the screen display when in any exam mode.

**Enter**
- Enters the numeric data you enter into the field or activates the selected function.

**Delete**
- Erases the selected waveforms on the Record screen display. Deletes last character or selected entry.
| J | Sensitivity | Changes the amplifier sensitivity for the recorded data. Press ↑ to numerically increase the sensitivity, which decreases the size of the displayed waveforms. Press ↓ to numerically decrease the sensitivity, which increases the size of the displayed waveforms. These keys can also be used as navigational tools in lists. |
| K | Timebase | Changes the time base for the displayed trace. Press → to increase the time base, which compresses the waveform(s) and increases the total sweep time. Press ← to decrease the time base, which expands the waveform(s) and decreases the total sweep time. These keys can also be used as navigational tools in lists. |
| L | Next Side Select test | Selectes next exam. Toggles the exam side, left or right. Activates the test selection screen display. |
| M | Mouse | Right mouse click. |
| N | Cursor | Moves cursor or selected marker. |
| O | Glide point pad | Simulate mouse movement. |
|  | USB | USB connected/active when illuminated. |
**AT2 and AT2+6 amplifier**

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Temperature Probe Connector</td>
<td>The temperature probe attaches to this connector for skin temperature measurements. Connecting the temperature probe displays the temperature on the Exam Record screen.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Power Indicator</td>
<td>When the blue light is illuminated, the amplifier has power.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Common (Ground)</td>
<td>Plug the patient ground electrode into either green jack on the amplifier. Both connections are at ground connection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Active (-) Electrode</td>
<td>Patient recording electrodes connect to the red (+) and black (-) pin jacks. Negative voltages applied to the black input jack produce an upward deflection on the Nicolet EDX display. Use the black input jack as the ‘active’ electrode.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>DIN Electrode Connector</td>
<td>The DIN electrode connectors accommodate patient electrodes supplied with DIN jacks, such as concentric needle electrodes. The DIN connectors provide a negative-up convention.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>Reference (+) Electrode</td>
<td>Patient recording electrodes connect to the red (+) and black (-) pin jacks. Negative voltages applied to the black input jack produce an upward deflection on the Nicolet EDX display. Use the red input jack as the inactive or reference electrode for a negative-up convention.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>Run/Standby Switch</td>
<td>Turns the EMG amplifier channel inputs ON and OFF.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Run/Standby Indicator</td>
<td>When the green light is illuminated, the channel is ON and is ready to receive signals from the patient electrodes. When OFF, the amplifier input jacks are disconnected and grounded internally.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Headbox Connector</td>
<td>For optional Headbox.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>1020 Integrated Headbox</td>
<td>The numbers correspond to the montages defined in the software.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>Type BF Equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>!</td>
<td>See Labels and Symbols on page 1-3 in this manual.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>Not for use</td>
<td>in the presence of Electrical Surgical Unit (ESU) without additional patient protection headbox or other in-line protection device.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Electrostatic sensitive</td>
<td>See EMC Guide 269-596201 for instructions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td>Amplifier interface</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ECR-16 amplifier

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>See Labels and Symbols on page 1-3 in this manual.</td>
</tr>
<tr>
<td>B</td>
<td>HB-1 headbox</td>
</tr>
<tr>
<td>C</td>
<td>Type BF equipment</td>
</tr>
<tr>
<td>D</td>
<td>HB-2 headbox</td>
</tr>
<tr>
<td>E</td>
<td>Not implemented at this time.</td>
</tr>
<tr>
<td>F</td>
<td>Amplifier interface</td>
</tr>
<tr>
<td>G</td>
<td>Equipotentiality</td>
</tr>
</tbody>
</table>
**HB-6 headbox (AT2+6)**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><img src="image1" alt="Diagram" /></td>
<td>Common.</td>
</tr>
<tr>
<td>B</td>
<td><img src="image2" alt="Diagram" /></td>
<td>See Labels and Symbols on page 1-3 in this manual.</td>
</tr>
<tr>
<td>C</td>
<td><img src="image3" alt="Diagram" /></td>
<td>Type BF Equipment.</td>
</tr>
<tr>
<td>D</td>
<td><img src="image4" alt="Diagram" /></td>
<td>Headbox.</td>
</tr>
<tr>
<td>E</td>
<td><img src="image5" alt="Diagram" /></td>
<td>Not for use in the presence of Electrical Surgical Unit (ESU) without additional patient protection headbox or other in-line protection device.</td>
</tr>
<tr>
<td>F</td>
<td><img src="image6" alt="Diagram" /></td>
<td>The HB-6 Headbox consists of 1020 head pattern and 2 ground jacks. It is equipped with a 6 foot signal cable and a clip that allows you to secure the Headbox on or near your patient.</td>
</tr>
</tbody>
</table>

**HB-7 headbox (AT2+6)**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td><img src="image7" alt="Diagram" /></td>
<td>Common.</td>
</tr>
<tr>
<td>B</td>
<td><img src="image8" alt="Diagram" /></td>
<td>See Labels and Symbols on page 1-3 in this manual.</td>
</tr>
<tr>
<td>C</td>
<td><img src="image9" alt="Diagram" /></td>
<td>Type BF Equipment.</td>
</tr>
<tr>
<td>D</td>
<td><img src="image10" alt="Diagram" /></td>
<td>Headbox.</td>
</tr>
<tr>
<td>E</td>
<td><img src="image11" alt="Diagram" /></td>
<td>Designed for use in the presence of Electrical Surgical Unit (ESU).</td>
</tr>
<tr>
<td>F</td>
<td><img src="image12" alt="Diagram" /></td>
<td>The HB-7 Headbox consists of 1020 head pattern and 2 ground jacks. It is equipped with a 6 foot signal cable and a clip that allows you to secure the Headbox on or near your patient.</td>
</tr>
</tbody>
</table>
**HB-1 and HB-2 headbox (ECR16)**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>!</td>
<td>See Labels and Symbols on page 1-3 in this manual.</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td></td>
<td>Type BF Equipment.</td>
</tr>
</tbody>
</table>
| **C** | | Electrode inputs  
| | HB-1 = 1 - 20  
| | HB-2 = 21 - 40 |
| **D** | | Reference  
| | HB-1 = 1 - 2  
| | HB-2 = 3 - 4 |
| **E** | | Common  
| | HB-1 = 1 - 2  
| | HB-2 = 3 - 4 |
| **F** | | Headbox to amplifier cable connector. |

---

**Diagram:**

- **A:** See Labels and Symbols on page 1-3 in this manual.
- **B:** Type BF Equipment.
- **C:** Electrode inputs  
  - HB-1 = 1 - 20  
  - HB-2 = 21 - 40
- **D:** Reference  
  - HB-1 = 1 - 2  
  - HB-2 = 3 - 4
- **E:** Common  
  - HB-1 = 1 - 2  
  - HB-2 = 3 - 4
- **F:** Headbox to amplifier cable connector.
Nicolet EDX

Nicolet EDX electrical stimulator probes

Several types of electrical stimulator probes are available for use with the Nicolet EDX.

- The S403 probe has remote control for stimulus start / stop and intensity.
- Comfort Probe (RS10)
- Comfort Probe Plus (WR50)

Comfort Probe Plus stimulator icons

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Stimulation On/Off.</td>
</tr>
<tr>
<td>B</td>
<td>Press wheel to start / stop stimulation. Rotate wheel to increase / decrease stimulus intensity.</td>
</tr>
<tr>
<td>C</td>
<td>Variability. Increase / Decrease Stimulus Intensity.</td>
</tr>
<tr>
<td>D</td>
<td>Increase Stimulus Duration.</td>
</tr>
<tr>
<td>E</td>
<td>Decrease Stimulus Duration.</td>
</tr>
<tr>
<td>F</td>
<td>Next Trace (Waveform)</td>
</tr>
<tr>
<td>G</td>
<td>Stimulus Polarity (switches cathode side)</td>
</tr>
<tr>
<td>H</td>
<td>Type BF Equipment.</td>
</tr>
<tr>
<td>I</td>
<td>See Labels and Symbols on page c in this manual.</td>
</tr>
<tr>
<td>J</td>
<td>Lighted LED indicates the cathode (-) side.</td>
</tr>
</tbody>
</table>
SP1/SP2 Stim-Switching Units

A  Stimulator Probe Input (No external control)
B  Lower Level Pair
C  Stimulator Outputs
## Nicolet EDX Base Unit rear panel icons

<table>
<thead>
<tr>
<th>A</th>
<th>Reflex Hammer.</th>
<th>P</th>
<th>USB.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Input/output option device port.</td>
<td>Q</td>
<td>Trigger 1 / 2 In.</td>
</tr>
<tr>
<td>C</td>
<td>Viking EDX Control Panel.</td>
<td>R</td>
<td>Trigger.</td>
</tr>
<tr>
<td>D</td>
<td>Synergy EDX Control Panel.</td>
<td>S</td>
<td>Stimulator Option Port.</td>
</tr>
<tr>
<td>E</td>
<td>Trigger 1 / 2 Out.</td>
<td>T</td>
<td>Right ear headphone Out.</td>
</tr>
<tr>
<td>F</td>
<td>Analog Out.</td>
<td>U</td>
<td>Headphones.</td>
</tr>
<tr>
<td>G</td>
<td>See Labels and Symbols on page c in this manual.</td>
<td>V</td>
<td>Left ear headphone Out.</td>
</tr>
<tr>
<td>H</td>
<td>Audio Out.</td>
<td>W</td>
<td>System Power.</td>
</tr>
<tr>
<td>I</td>
<td>Type BF Equipment.</td>
<td>W</td>
<td>Output Power.</td>
</tr>
<tr>
<td>J</td>
<td>Audio In.</td>
<td>W</td>
<td>AC Power.</td>
</tr>
<tr>
<td>L</td>
<td>Loudspeaker.</td>
<td>W</td>
<td>Fuse.</td>
</tr>
</tbody>
</table>

### Voltage Label

Input voltage of 100VAC, 120VAC or 230VAC (110VA) at 50 or 60 Hertz. Maximum total output power is 70VA. See the icons below.

### System Power.

![System Power Icon](image)

### Output Power.

![Output Power Icon](image)

### AC Power.

![AC Power Icon](image)
<table>
<thead>
<tr>
<th>M</th>
<th><img src="icon" alt="Equipotentiality" /></th>
<th>Equipotentiality.</th>
<th>W</th>
<th>Hz</th>
<th>Frequency Range.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td><img src="icon" alt="Footswitch" /></td>
<td>Footswitch for single switch only.</td>
<td>W</td>
<td>VA</td>
<td>System Power / Output Power</td>
</tr>
<tr>
<td>O</td>
<td><img src="icon" alt="Amplifier" /></td>
<td>Amplifier.</td>
<td>W</td>
<td><img src="icon" alt="Warning" /></td>
<td>Attention, consult accompanying documents.</td>
</tr>
</tbody>
</table>
## Nicolet EDX Base Unit front panel icons

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>IES-1</td>
<td>G</td>
<td>Type BF Equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>[Image] Consult Operating Instructions. Failure to follow operating instructions could place the patient or operator at risk. Image on blue background. (ISO 7010 M002)</td>
<td>I</td>
<td>Stimulation On/Off.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>IES-2</td>
<td>J</td>
<td>No Icon</td>
<td>SP1/SP2 Stim-Switching Connection. SP2 Stim-Switching boxes are connected to the SP1 in parallel.</td>
<td></td>
</tr>
</tbody>
</table>
### Nicolet EDX Base Unit label icons

<table>
<thead>
<tr>
<th>A</th>
<th>REF</th>
<th>Manufacturing Reference Number.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>🏛️</td>
<td>Manufacturer.</td>
</tr>
<tr>
<td>C</td>
<td>LOT</td>
<td>Manufacturing Date coded into Lot number.</td>
</tr>
<tr>
<td>D</td>
<td>🌐</td>
<td>CE Mark.</td>
</tr>
<tr>
<td>E</td>
<td>⏰</td>
<td>50 years of life before leakage of contaminants into landfill.</td>
</tr>
<tr>
<td>F</td>
<td>🚀</td>
<td>Special Recycling Required. Do not dispose in landfill.</td>
</tr>
<tr>
<td>G</td>
<td>🎬</td>
<td>Manufacturer’s Bar Code.</td>
</tr>
</tbody>
</table>
Powering the system

Turning the system on

When you switch on the main power, the system displays several startup and diagnostic messages on the screen.

Turning on a Desktop system

For the first time you switch on the system power, switch the components on in the following order:

1. Isolation Transformer
2. Monitor
3. Processor (Computer)
4. Base Unit

Turning on a Portable system

The first time you switch on system power, switch the components on in the following order:

1. Base Unit
2. Laptop Computer

Turning the printer on and off

Press the printer Power button to turn power on. Because the printer power is controlled by the isolation power supply, you can leave this power switch on.

WARNING For proper isolation while the patient is connected to the system, only connect a battery powered or independently isolated printer to the system. Do not charge the printer’s battery or operate the printer from a wall outlet when the system is connected to the patient.
Logging in

After approximately one minute following the power up procedure, the system activates Windows and displays the “Log on to Windows” dialog.

1. The logon information for your Viking EDX/Synergy EDX software was preset at the factory. Unless your system administrator changed the information, it will read as follows:
   - The user name should be “Nicolet.”
   - There is no password.

**Note:** If you have difficulty logging in, consult with your system administrator.

2. Press the **Enter** key. The system displays the Windows desktop.

Launching the system software

1. To start the software, double-click on the **Viking** icon or **Synergy** icon. This will display the Home Page.

**Note:** If you are using NicVue, you will not see the Viking EDX or Synergy EDX Home Page. Please refer to NicVue Help for operating instructions.

**Note:** See Chapter 4 for example Viking EDX and Synergy EDX tests / studies.
The Home Page contains seven menus used to access the main areas of the software.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Patient</strong></td>
<td>Click <strong>New Patient</strong> to create a new patient record and finalize any open visits. Patients with matching demographics will be listed, if found in the database.</td>
</tr>
<tr>
<td><strong>Patients</strong></td>
<td>Click <strong>Patients</strong> to select an existing patient for a new session, enter new patient information or edit existing patient information.</td>
</tr>
<tr>
<td><strong>Select Test</strong></td>
<td>Click <strong>Select Test</strong> to choose the Test or Study that you want to perform on the selected patient.</td>
</tr>
<tr>
<td><strong>Test Screen</strong></td>
<td>Click <strong>Test Screen</strong> to review the test data and traces recorded on the selected patient from the most recent or currently selected visit.</td>
</tr>
<tr>
<td><strong>Test History</strong></td>
<td>Click <strong>Test History</strong> to show the currently selected patient’s test history, review or restart a test from the list.</td>
</tr>
<tr>
<td><strong>Report</strong></td>
<td>Click <strong>Report</strong> to open the report for the selected patient’s currently selected or most recent visit.</td>
</tr>
<tr>
<td><strong>Help</strong></td>
<td>Click <strong>Help</strong> to access application Help with links to manuals and other system information.</td>
</tr>
</tbody>
</table>

**Note:** Refer to the On-line Help (located in the EDX software) for more in depth information on how to use the system.

1. Enter into the **EDX software**.
2. Click on **Help > Help Topics**.
Test screen controls

Following are various test screen controls you can use during an exam. The graphics below are representational only. The actual appearance is determined by the software selected (Viking EDX / Synergy EDX) and the test selected.

Header bar

The Header bar displays the patient’s First and Last name, Age, and the visit Date and Time.

Menu bar

The Menu bar contains menus that, when clicked, displays a list of options from which you can choose to perform various operations.

Toolbar

The Toolbar contains several icons/settings fields, which are used to control the how data is displayed. The controls displayed on the Toolbar is determined by the Test/Study selected for use.

Position the mouse pointer over an icon/field to see a brief description of it’s function.
Nicolet EDX

Quick Access bar

The **Quick Access Bar** is located above the Function Key Area. It allows you to quickly control NCS and EMG tests.

You can end the visit, exit the test, select a new nerve and side, start the next set, and select a different test.

Function Key Area

The **Function Key Area** at the bottom of the Test window, lists the options available in the current operating mode.

If the Function Key Area contains multiple lines of options, click on the **Previous / Next** button to scroll through the lines.

To select an option, press the corresponding Control Panel **Softkey** or click on the displayed option button.
Using the Acquisition Setup panel

1. To display the Acquisition Set panel, use either of the following methods:
   a. Click Acquisition > Acquisition Setup.
   b. From the Toolbar, click on Ch. 1, Low 3, or High 5.

![Figure 1.](image)

Note: Changes made to the settings outlined at the left in Figure 2 will affect all of the channels automatically.

2. Click on the Ch # tab 9 you want to set.
3. Make your settings as desired.
4. Click OK.
**Setting individual channels on the Acquisition Setup panel**

This procedure sets changes made on the Acquisition Setup panel only to the selected channel. See *Note 1* below Figure 2 on the previous page.

1. Click on **Ch. ①**, **Low ③**, or **High ⑤**.
2. Click on the **Channel** tab (e.g., **Ch 1**, **Ch 2**, **Ch 3**, etc.) you want to edit.
3. Make your changes and click **OK**.
   
   Changes you made are applied only to the selected channel.

**Setting all channels on the Acquisition Setup panel**

This procedure sets changes made on the **Channel 1 tab** to all of the channels. See *Note 1* below Figure 2 on the previous page.

1. Click on **Ch. ①**, **Low ③**, or **High ⑤**.
2. Click on the **Channel 1** tab.
3. Make your changes and click **Apply to all** (see ⑧ in Figure 2 earlier in this chapter).
4. Click **OK**.

   Changes you made on Channel 1 are applied to all of the channels.
Applying Filter settings to all channels from the Toolbar

This procedure sets all of the channels to the same Low / High Filter setting.

![Figure 3.](image)

1. Set 2 to All.
2. Click the Low 3 or High 5 Filter show menu arrow ⬇️.
3. Click on the desired Filter setting.
   The new Filter setting is applied to all of the channels.

Applying Filter settings to a single channel from the Toolbar

This procedure sets only the selected channel to the new Low / High Filter setting.

![Figure 4.](image)

1. Set 2 to the channel you want to edit (e.g., 1, 2, 3, etc.).
2. Click the Low 3 or High 5 Filter show menu arrow ⬇️.
3. Click on the desired Filter setting.
   The new Filter setting is applied only to the selected channel.
Exiting the software

To exit the Viking EDX / Synergy EDX program, using either of the following methods:

a. Click on the Close icon in the upper right corner of the software window.

b. Right-click on or the upper left corner of the software window and click Close.

Note: To return to NicVue, click on the Patients icon in the EMG application.

Turning the Viking EDX / Synergy EDX system off

Desktop system

You can switch system power off using just the Isolation Power Supply power switch. You should run Windows Shutdown to turn the computer off before turning the system power off.

Portable system

Switch the components off in the following order:

1. Laptop Computer by running Windows Shutdown.
2. Base Unit.
This chapter explains how to use the Nicolet EDX Patient Information feature used for working with your patient exam files.
The Patients screen

Patient Information has sections where you enter specific data about the patient, such as the Patient ID, Gender, Birth Date, and Patient Name as well as physician information, impressions and conclusions.

Creating a new patient information record

1. Click on the New Patient icon.
2. Enter the patient's information.

Note: Required fields are highlighted in yellow. Patient ID (1 character minimum, 11 characters maximum).

3. Click OK when finished.

Editing a patient information record

1. Display the Patients window:
   a. If already viewing the Patients window, continue with step 2.
   b. If viewing the Select Test, Test Screen, or Test History window, click on the Patients icon and continue with step 2.
2. From the list of patients, double-click on the Patient you want to edit.
3. To edit the Patient Information, click on the Edit Patient icon.
4. Click OK when finished.
Editing a visit record

1. Display the Patients window:
   a. If already viewing the Patients window, continue with step 2.
   b. If viewing the Select Test, Test Screen, or Test History window, click on the Patients icon and continue with step 2.

2. From the list of patients, double-click on the Patient you want to edit.

3. Click on the Edit Visit icon.

4. Edit the Visit information as necessary.

Deleting a patient information record

⚠️ CAUTION This procedure permanently erases information, which cannot be retrieved.

1. Display the Patients window:
   a. If already viewing the Patients window, continue with step 2.
   b. If viewing the Select Test, Test Screen, or Test History window, click on the Patients icon and continue with step 2.

2. Right-click on the Patient you want to delete.

3. Click Delete Patient.

4. Click Yes.
About NicVue (option)

NicVue is a database used to set up and manage your patient information and exams. It allows you to select your patient and the desired test mode for acquisition or a stored exam for review from one screen.

When you first enter the program, you will see the NicVue Main window. At the top of this window is the menu bar, which lists the menus containing the NicVue options.

Below the menu bar is the program icon bar which allows you to select an operating mode and test mode. The icons displayed on this bar depend on the number and type of programs that are installed on your system’s hard drive.

The remaining sections of the NicVue main window consist of two lists:

- **Patient Information** lists all patients stored on the hard drive.
- **Test Data** lists all the test exams stored for the highlighted patient. These files are identified by test type and are listed chronologically.

The NicVue Patient Information window contains administrative information, such as the patient’s name, address, ID code, birth date, physical characteristics and medical history. You create or modify patient information on this window.

**Note:** To return to NicVue, click on the Patients icon in the EMG application.

Please refer to NicVue Help on your EDX system for operating instructions.
Performing an Exam

This chapter provides general instructions for performing a study or exam, using a Motor Nerve Conduction Study (MNC) as an example. You can apply these basic steps to perform most of the exams available on the Viking EDX / Synergy EDX programs.
Summary of steps

1. Set up the system.
2. Turn on the system.
3. Create a new patient file or recall an existing patient file.
4. Enter the Viking EDX / Synergy EDX program, select the exam and settings, then enter the test modality.
5. Prepare the patient.
6. Acquire the data.
7. Review the data.
8. Print the report.
9. Archive the data.

Notes

An example procedure for using the tests follows. Some procedures are common to all tests, but note that others are either different or not used at all:

1. Attach the electrodes accordingly for the individual tests.
2. Different types of stimulators are used for different tests.
3. Ensure that the stimulus used is suitable for the patient, paying particular attention to the stimulus intensity.
4. Data acquired by the instrument is stored in memory and displayed on the screen.
5. The distances between electrode sites must be entered before conduction velocity results can be calculated and displayed on the screen during Motor Nerve Conduction and Sensory Nerve Conduction tests.
6. Traces may be selected for marking or trace analysis by clicking on the trace with the mouse.
Example record window summaries

Viking EDX Motor 
Nerve Conduction Study

The following example figure provides a brief description of the various areas you will view when performing an Viking EDX NCS test.

Sections of the Viking EDX MNC Record Mode Screen

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Patient and Visit Information</td>
<td>I</td>
</tr>
<tr>
<td>B</td>
<td>Selected Test</td>
<td>J</td>
</tr>
<tr>
<td>C</td>
<td>Data Area</td>
<td>K</td>
</tr>
<tr>
<td>D</td>
<td>Navigation Icons</td>
<td>L</td>
</tr>
<tr>
<td>E</td>
<td>Test, Acquire On/Off, EL1 On/Off, DIN1</td>
<td>M</td>
</tr>
<tr>
<td>F</td>
<td>Insert/Hide Traces</td>
<td>N</td>
</tr>
<tr>
<td>G</td>
<td>Site Table</td>
<td>O</td>
</tr>
<tr>
<td>H</td>
<td>Results Area</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S</td>
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<td></td>
<td></td>
<td>T</td>
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<td></td>
<td></td>
<td>U</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>W</td>
</tr>
</tbody>
</table>
Performing an Exam

The following example figure provides a brief description of the various areas you will view when performing a Synergy EDX NCS test.

**Sections of the Synergy EDX MNC Record Mode Screen**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| Patient and Visit Information | Selected Test | Data Area | Navigation Icons | Test, Acquire On/Off, EL1 On/Off, DIN1 | Insert/Hide Traces | Site Table | Results Area | Patient and Visit Information | Selected Test | Data Area | Navigation Icons | Test, Acquire On/Off, EL1 On/Off, DIN1 | Insert/Hide Traces | Site Table | Results Area | Segment Table | Superimpose Data / Display the Screen Area Setup - Stores Panel | Test Site | Nerve Step Numbers | Time Base | Sensitivity | Quick Access Bar | Status Bar | Display Area full Screen |

**A** **B** **C** **D** **E** **F** **G** **H** **I** **J** **K** **L** **M** **N** **O** **P** **Q** **R** **S** **T** **U** **V** **W** **X** **Y** **Z**
Setting up the system

Make sure the components are properly connected to your system.

⚠️ CAUTION Do not turn on any system power until all cable connections have been connected properly and verified. Please see Chapter 2 in this guide.

You will also need the appropriate application software installed on your system.

Getting started

Please refer to Chapter 2 in this guide for instructions on:

- Power the system.
- Log in.
- Launch the system software.

Turning on the system

When you switch on the main power, the system displays the Windows Logon screen.
After you log on to the system, the NicVue Main window or the Viking EDX / Synergy EDX Home Page is displayed.

Starting / exiting NicVue

Please refer to the NicVue Help on your system for instructions on using the NicVue program.

7.
Example Motor Nerve Conduction Test

Position and secure the electrodes to your patient according to your conventions for the type of test you are performing.

**Note:** The recording electrode is placed on a muscle, even though the interest is in the conduction along the nerve.

The nerve is stimulated using surface electrodes at two or more sites where the nerve is located superficially. The stimulator is oriented so that the cathode of the stimulator faces the active recording electrode.

Negative voltage applied to the black (-) input jack produces an upward deflection on the screen display. Use the black input jack as the **active** electrode and the red input jack as the **reference** or **inactive** electrode for a negative-up convention.

<table>
<thead>
<tr>
<th><strong>Electrode</strong></th>
<th><strong>Amplifier Channel Connector</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground</td>
<td>Green DIN Input</td>
</tr>
<tr>
<td>Black (-) - Active Recording</td>
<td>Black DIN Input</td>
</tr>
<tr>
<td>Red (+) - Reference Recording</td>
<td>Red DIN Input</td>
</tr>
<tr>
<td>DIN (Recording)</td>
<td>Large 5-pin Circular DIN Input</td>
</tr>
</tbody>
</table>
Motor NCS electrode placement

- The active recording electrode is placed over the endplate zone of a muscle innervated by the tested nerve.
- The reference electrode is placed nearby in an electrically “quiet” area.
- The ground electrode is usually placed between the stimulating and recording electrodes.
- Using electrolytic gel between the skin and recording electrode improves the “electrical contact” and reduces noise.
- When recording from a deep muscle, one may use a concentric or monopolar needle for recording.

Sensory NCS electrode placement

- Surface disk or ring electrodes are placed over the skin where the tested nerve is superficially located.
- The nerve is stimulated at sites where it is superficially located. The cathode of the stimulator is oriented towards the active recording electrode.

Connect the stimulating electrodes

To connect external stimulating electrodes to the Comfort Probe or Comfort Plus Probe:

1. Remove the probe head.
2. Replace the probe head with the pin jack head.
3. Connect the anode (+) and cathode (-) electrodes in the corresponding pin jacks.
Create / select a patient record

Creating a new patient record
1. Create a new patient record using either of the following methods:
   a. From the Home page, click the **New Patient** icon.
   b. From the Home page, click the **Patients** icon and then click the **New Patient** icon.
2. Enter the patient information (yellow fields are required).
3. Click **OK**.
4. The Select Test window opens automatically.

Selecting an existing patient record
1. Click the **Patients** icon to display the Patients window.
2. Select the patient record using either of the following methods:
   a. Double-click on the desired **patient**.
   b. Click on the desired **patient** and then on the **Open Patient** icon.
3. Click on the **visit** you want to open.
4. Click on the **Select Test** icon to display the Select Test window.
Nicolet EDX

Select a test

1. Click the NCS icon at the top of the Select Test window.

2. Click on the desired Side icon to select the exam side (left or right).

3. Click on the desired Test.

4. Display the Test Screen using either of the following methods:
   a. Double-click on the desired Anatomy.

   b. Click on the desired Anatomy and then on the Test Screen icon.

5. The Test Screen is displayed.

Alternate workflow notes:

You can also click on the Test Menu icon and select the desired test from the list.

You can also click on the Study Menu icon and select the desired study from the list.
Performing an Exam

Acquire the data

Data is acquired by the instrument, stored in memory and displayed on the screen when the Acquisition mode is on.

1. Set the stimulus intensity to 0.
2. Position the stimulator at the appropriate site.
3. Start stimulation and acquisition using any of the following methods:
   a. Press the **Acquire ON** button on the control panel.
   b. Step on the Footswitch.
   c. Press the wheel on the Comfort Probe Plus stimulator probe.
4. Use the **Stim Intensity** rotary control or the Intensity wheel on the Comfort Probe Plus stimulator probe to gradually increase the intensity of the electrical stimulus until it is supramaximal.
5. When an acceptable response is observed, stop stimulation and acquisition using any of the following methods:
   a. Press the **Acquire ON** button on the control panel.
   b. Step on the Footswitch.
   c. Press the wheel on the Comfort Probe Plus stimulator probe.
6. To average responses, click **Average > Averager Setup** and check the **Average On** checkbox. If the **Averager** is Off, each newly acquired response will overwrite the previous one.
7. Push the **Next** button to start the next exam.
8. Follow the same procedure to obtain a response for each required site.

**Note:** The calibration signal is triggered to allow averaging. Note that high and low frequency filter settings may attenuate the amplitude of the calibration signal.
Saving test data

Automatic

When you go to Patients or Select Test, the data is saved automatically to the hard disk.

Manual

To save data manually on the hard disk without closing the Test Screen, use either of the following methods:

a. Click File > Save Results.

b. Press the Save button on the Viking EDX control base.

Creating / updating a report

Automatic

When you go to Select Test, New Patient, or Patient List, the report is updated automatically.

Manual

To create / update a report manually on the hard disk without closing the Test screen:

1. Click on the Report icon.

Printing a standard data report

To print a standard data report for the exam just completed:

1. Click on the Report icon.
2. Click on the File tab.
3. Click on Print at the left side of the report.
4. Make your printing settings.
5. Click Print in the upper left section of the window.
Capturing screen display images and videos

**Capturing a screen display image**

To capture a copy of the current screen display at any time, use any of the following methods:

- Click on the **Capture Screen** icon for a softcopy (.jpg file).
- Click **File > Print Screen** for a printed hardcopy.
- Press **Screen Copy** on the **Viking EDX** control panel for a printed hardcopy.

**Capturing a test screen video**

To capture a video of the test screen display, use either of the following methods:

- Click on the **Capture Video** icon. Repeat to stop recording.
- Click on **File > Producer > Capture Video**. Repeat to stop recording.

**Reviewing a captured test screen video**

1. Click on **File > Producer > Producer Recordings**.
2. Locate and open the video file you want to review (files are time stamped).
This chapter describes various operations that are common between the Viking EDX and Synergy EDX systems.

The following keys identify to which system the procedures in this chapter applies.

<table>
<thead>
<tr>
<th></th>
<th>Steps apply to <strong>both</strong> the Viking EDX and Synergy EDX.</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Viking EDX" /></td>
<td>Steps apply to <strong>Viking EDX</strong> only.</td>
</tr>
<tr>
<td><img src="image" alt="Synergy EDX" /></td>
<td>Steps apply to <strong>Synergy EDX</strong> only.</td>
</tr>
</tbody>
</table>

**Note:** Various operations can also be performed using the Function Key Areabuttons located at the bottom of Test/Review windows. These controls are not included in this chapter.
### Adding new tests to a previous visit

You can acquire new tests and add the data to a previous visit.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Click on the <strong>Patients</strong> icon.</td>
</tr>
<tr>
<td>2.</td>
<td>Double-click on the <strong>Patient</strong> record.</td>
</tr>
<tr>
<td>3.</td>
<td>Click on the <strong>Visit</strong> into which you want to add and store new tests.</td>
</tr>
<tr>
<td>4.</td>
<td>Click on the <strong>Acquire Visit</strong> icon located above the list of previous visits.</td>
</tr>
<tr>
<td>5.</td>
<td>Click on the <strong>NCS</strong>, <strong>EMG</strong>, <strong>EP</strong>, or <strong>IOM</strong> icon for the test you want to perform.</td>
</tr>
<tr>
<td>6.</td>
<td>Select the <strong>Test</strong>.</td>
</tr>
<tr>
<td>7.</td>
<td>Double-click on the desired <strong>Anatomy/Location/Test</strong>.</td>
</tr>
<tr>
<td>8.</td>
<td>Acquire the new data.</td>
</tr>
</tbody>
</table>

### Adding new data to a previous test

You can acquire new data and add the data to a previous test.

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Click on the <strong>Patients</strong> icon.</td>
</tr>
<tr>
<td>2.</td>
<td>Double-click on the <strong>Patient</strong> record.</td>
</tr>
<tr>
<td>3.</td>
<td>Click on the <strong>Visit</strong> containing the test into which you add new test data.</td>
</tr>
<tr>
<td>4.</td>
<td>Click on the <strong>Test</strong> into which you want to add new test data.</td>
</tr>
<tr>
<td>5.</td>
<td>Click on the <strong>Acquire Test</strong> icon located above the list of previous tests.</td>
</tr>
<tr>
<td>6.</td>
<td>Acquire the new data.</td>
</tr>
</tbody>
</table>
To change the Stimulus Duration (0.01 - 1.0 ms) presented to the patient:

1. Use either of the methods below:
   a. Click on the Stimulator $EL_1$ $0.1\,\text{ms}$ setting field and click on the new setting from the menu.
   b. Press the Comfort Probe Plus $S_1$ button to increase or $S_2$ button to decrease the stimulation duration.

1. Rotate the **Stim Duration** control.

To change the Sensitivity for the test:

1. Press the **Trace** upper or lower hardkey on the Viking EDX Control Panel to select the trace.
2. Use either of the methods below to change sensitivity:
   a. Press the Comfort Probe Plus $S_3$ button.
   b. Press the **upper** hardkey to increase or **lower** hardkey to decrease the sensitivity.

1. Click on the desired **Trace**.
2. Use either of the methods below to change the sensitivity:
   a. Press the Comfort Probe Plus $S_3$ button.
   b. Rotate the **Sensitivity** control on the Synergy EDX Control Panel.
Changing the Stimulus Rate

To elect the desired Stimulator Repetition Rate, use any of the following methods:

a. Click on the **Stim Rep Rate** field in the toolbar and type the desired rate.

b. Click on the **Stim Rep Rate** show menu arrow and click on a commonly used rate.

Select Repetitive or Single sweep acquisition

Select **Repetitive** or **Single Sweep** stimulus delivery, using either of the following methods:

1. Click on the **Stimulus Delivery** icon to select the setting:
   - 🔫 = Delivers a single stimulus and initiates a single sweep each time you press the **Switch** key or step on the **Footswitch**.
   - ⚡️ = Delivers repetitive stimulus and sweeps after you press the **Switch** key or step on the **Footswitch**. Press the **Switch** key or step on the **Footswitch** again to stop delivery.

1. Click on the Function Key Area **Switch** button to select **Repetitive** or **Single**.
You can have the software place markers automatically or place them manually.

**Placing markers automatically**

To have the software place markers automatically on the waves at the selected locations when the number of steps have been completed:

1. Click on **Results > Marker Setup**.
2. Check the Enable checkboxes for the desired Markers.
3. Ensure the **Auto** checkboxes for the markers you want placed automatically are also checked.

All relevant measurements and calculations are displayed in the tables in the Results Tables area.

**Placing markers manually**

To place markers manually on the data:

1. Click the **Marker Bar On/Off** button.
2. Click on **View > Panels > Marker Panel**.
3. From the Markers panel, use either of the following methods:
   a. Click on the **Marker Number** you want to place, position the marker icon over the wave feature you want to mark and click the mouse button. Repeat for each marker you want to place.
   b. Click on the **Fast Mark** button, position the marker icon over the first feature you want to mark as “1” and click the mouse button. Move the marker icon over the next feature and click the mouse button. Repeat until all of the desired markers have been placed. Click on the **Fast Mark** button again to turn the function off.
**Moving markers on a trace**

Measurements update automatically as you move the marker.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Click and drag the marker you want to move.</td>
</tr>
<tr>
<td>2.</td>
<td>Click on the marker you want to move and turn the mouse cursor wheel.</td>
</tr>
</tbody>
</table>

**Note:** Positioning latency marker 1 to the far left of the data display or latency marker 2 to the far right of the data display will exclude that latency from any calculations.

**No Response**

If you have not recorded a response to the stimulus on a trace, you can insert an NR for No Response on the Results table.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Click on the <strong>trace</strong> with no response.</td>
</tr>
<tr>
<td>2.</td>
<td>Select <strong>No Response</strong> from the Function Key Area.</td>
</tr>
<tr>
<td>3.</td>
<td>“NR” is displayed on the measurement table, instead of values for the selected trace.</td>
</tr>
</tbody>
</table>

**Resetting the markers**

If you have manually repositioned markers that were placed automatically by the system, you can return those markers to their original positions:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Click <strong>Results &gt; Reanalyze</strong>.</td>
</tr>
<tr>
<td>2.</td>
<td>Click <strong>Yes</strong> to confirm you want to reanalyze the selected trace.</td>
</tr>
</tbody>
</table>
Changing the screen display

To change the screen display before you begin acquiring data or after acquisition is completed:

1. Use any of the following methods to select how you want to view the screen display:
   a. Click View > Full Trace Area, or Full Results Area, Trace Area, Right Trace Area, or Trace Area Setup.
   b. Press the Display softkey to show your data display options.
   c. Press the Screen softkey to toggle between your choices:
      - **Normal**: The Data Area covers half the screen and the Results Area is displayed.
      - **Full**: The Data Area covers the width of the screen and the Results Area is hidden temporarily.
      - Click on the desired toolbar Display icon.
Activating markers

To activate a marker, use either of the following methods:

1. Click on the **marker** you want to activate. It will turn Red.

1. You can activate markers using the **Marker** hardkeys on the Viking EDX control panel.
   
   a. Press **Marker 1 (advance)** to activate the first latency or amplitude marker on a trace. Press this key again to activate the first latency or amplitude marker on the next trace.
   
   b. Press **Marker 2 (advance)** to activate the second latency or amplitude marker on a trace. Press this key again to activate the second latency or amplitude marker on the next trace.
   
   c. Press **Latency/Amplitude** to switch between the latency and amplitude markers.

Superimposing traces

In a single nerve study, superimposed traces are displayed in the center of the screen. In a two-nerve study, waveforms recorded from Nerve A are displayed on the upper half of the screen; waveforms recorded from Nerve B are displayed on the lower half.

1. Use any of the following methods to superimpose traces:
   
   a. Click on the **Superimpose** button on the Toolbar. Click **Superimpose** again to return the traces to their original positions.
   
   b. Press the **Superimpose** button on the Control Panel to overlay traces containing data. Press **Superimpose** again to return the traces to their original positions.
   
   c. Select the **S. Impose** button from the Function Key Area.
   
   d. Click **View > Superimpose**.

1. Use either of the following methods to superimpose traces:
   
   a. Select the **S. Impose** button from the Function Key Area.
   
   b. Click **View > Superimpose**.
### Calculating Conduction Velocities

To calculate and display the conduction velocity of specific segments:

1. Click **Edit > Site Setup**.
2. Check the **Velocity** checkbox(es) to select which segments will display the velocity in the Segments results table.
3. Click **OK**.
4. Type in the **distance** for each of the sites for which you want to view the Velocity values.

### Measuring patient temperature

If enabled, the system enters the patient’s temperature automatically on the trace or segment table during acquisition.

1. Secure the temperature probe to an appropriate location on the patient’s skin.
2. Connect the temperature probe to the amplifier.
3. Use either method below to display the Results Table Setup panel.
   a. Click **Edit > Results Table Setup**.
   b. Click on any results value **column heading** on the Results Table (e.g., Distance mm, Lat Diff ms, etc.).
4. Click on an empty field’s **Show Menu** button (A) below.
5. Click on **Temperature**. The selected field now reads Temperature.
6. To move Temperature to a different column location in the Segment table, click the Up or Down Arrow (B).
7. To remove a column from the Results tables, click on the corresponding number and click the **Minus** button (C).
8. The **Plus** button (C) inserts an empty field above the currently selected field.
9. Click **OK** when done.
**Changing the nerve name**

To change the nerve label from either the Record or Review mode.

1. Right-click anywhere in the **Results Table** area at the right of the **Data** display area.
2. Click on **Change Nerve Label** from the popup menu.
3. Click on the **Nerve** name with which you want to replace the current label.
4. Click **OK**.

---

**Viewing the nerve list**

To choose how you want to view the Test / Anatomy list on the Select Test window.

1. Right-click on the **Heading** at the right side of the **Select Test** window.
2. Click on the desired method with which you want to view the list.

---

**Choosing a side for the exam**

To select a Side during the exam, use either of the following methods:

- a. From the **Select Test** window, click on ** left** to choose the **Left** side or  ** right** to choose the **Right** side.

- b. Press the **Side** button on the **Viking EDXControl Panel**.
The following steps will erase data:

<table>
<thead>
<tr>
<th><strong>Using the Toolbar</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Click on the <strong>trace</strong> you want to erase.</td>
<td></td>
</tr>
<tr>
<td>2. Click on the <strong>Erase</strong> button.</td>
<td></td>
</tr>
<tr>
<td>3. To restore the trace you just erased, click on the <strong>Unerase</strong> button.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Using the Control Panel</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To erase one or more traces, press <strong>Delete</strong> on the control panel. The Function Key Area displays your options.</td>
<td></td>
</tr>
<tr>
<td>2. To delete all displayed responses, press <strong>All Responses</strong>. The system clears the screen of all traces and measurement data.</td>
<td></td>
</tr>
<tr>
<td>- or - To delete a single trace, highlight the unwanted trace using the cursor wheel. The selected trace turns Red. Press <strong>Enter</strong> to delete the trace. Repeat as necessary until you have erased all unwanted responses.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Synergy EDX</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On the Synergy EDX control panel, press the <strong>M-</strong> button. The Function Key Area displays your options.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Synergy EDX</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Select the data trace you want to remove.</td>
<td></td>
</tr>
<tr>
<td>2. Click <strong>Edit &gt; Erase</strong>.</td>
<td></td>
</tr>
<tr>
<td>3. To restore the trace you just erased, click <strong>Edit &gt; Unerase</strong>.</td>
<td></td>
</tr>
</tbody>
</table>
## Performing an Exam

### Capturing a video
You can capture a video of the screen display during an exam.

<p>| | |</p>
<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Click on the <strong>Capture Video</strong> icon to start the video recording.</td>
<td><strong>2.</strong> Click on the <strong>Capture Video</strong> again to stop the video recording.</td>
</tr>
</tbody>
</table>

### Setting up a report
You can choose the content of the reports.

**From the Patients window**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Click on the <strong>Patients</strong> icon.</td>
<td><strong>2.</strong> Click <strong>Edit &gt; User Setup &gt; Report Setup.</strong></td>
</tr>
</tbody>
</table>

**From the Test screen**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Display the Test screen.</td>
<td><strong>2.</strong> Click <strong>Edit &gt; Test Report Setup.</strong></td>
</tr>
</tbody>
</table>
6

Backing up/restoring settings and importing legacy Viking Settings Setup

This chapter contains instructions for backing up and restoring your Settings and Test Folders as well as importing legacy Viking Settings Setup.

Note: The procedures in this chapter do not back up data acquired from exams.
Archiving Data

Back up settings and test folders

1. Click on Start > All Programs > Natus > Emg > Utilities > Backup Settings.
2. Click Yes on the EMG Settings Backup dialog.
3. Create a Name for the Settings folder.
4. Click Save.
5. Click OK on the EMG Settings Backup dialog, which identifies the location of your backed up Settings folder.

Restoring settings and test folders

From the Desktop:

1. Click on Start > All Programs > Natus > Emg > Utilities > Restore Settings.
2. Click Yes to confirm you want to override the existing settings on your system.
3. Click on the Settings folder you want to restore.
4. Click on Open.
5. Click OK, when notified that the settings have been restored.
Importing legacy Viking settings

This procedure imports previously created legacy Viking settings.

1. From any Viking window other than the Test window, click **File > Import > Viking Settings**.

2. Browse to the location of your Viking Settings (for example, C:\Nicolet\VikDir\Settings.Sel).

You can choose to import all of the Viking Setup and System Setup files, only the selected Viking Setup Settings file(s), or only the Viking System Setup files.

**Importing all Viking Tests and System Setup**

This method imports all Viking Test Setups and Viking System Setup, which includes the Look and Feel, Producer, Printer, Regional Settings, etc.

1. If you wish to change the default label of the Test Folder into which the setting(s) will be imported, type in the desired label.

2. Click **Import**.

**Importing only the selected Viking Setups**

This method imports only the selected Viking Test settings that you choose.

1. From the Viking Import Setup window, click **Expand** to display the Import Viking Settings pane, which allows you select specific settings files for import.

2. Uncheck **Select All**.

3. Click on the **Settings** file(s) you want to import.

4. Click the **Import Test Setups** button.

5. An Import status dialog appears.
   a. If the import was successful, click **Close**.
   b. If the import could only be completed partially, either:
      i. Click **Show Log** to view a list of settings that may require modifications after importing the selected setting(s).
      ii. Click **Close** to close the Log window.
      iii. Click **Close** to close the Import status dialog.

6. Click **Close** to close the Import Viking Settings pane.
Archiving Data

Importing only the Viking System Setup

This procedure imports only the Viking System Setup settings, which includes the Look and Feel, Producer, Printer, Regional Settings, etc.

1. From the Viking Import Setup window, click Expand to display the Import Viking Settings pane, which allows you select specific Setup files for import.

2. Click Import System Setup.

3. An Import status dialog appears.
   a. If the import was successful, click Close.
   b. If the import could only be completed partially, either:
      i. Click Show Log to view a list of settings that may require modifications after importing the selected settings.
      ii. Click to close the Log window.
      iii. Click Close to close the Import status dialog.

4. Click Close to close the Import Viking Settings pane.
Blank page.
### Index

**A**
- About the system 1-5
- Accuracy information 1-3
- Acquire the data 4-11
- Acquisition Setup panel 2-29
  - Applying Filter settings to all channels 2-30
  - Setting all channels on the Acquisition Setup panel 2-30
  - Setting individual channel 2-30
- Adding new data to a previous test 5-3
- Adding new tests to a previous visit 5-3
- Amplifier and system essential performance 1-4
- Archiving data 4-12
- AT2 and AT2+6 amplifier 2-13
- AT2+6 amplifier 2-13
- AT2+6 amplifier functions 2-13

**B**
- Backing up settings and test folders 6-3
- Backing up/restoring settings 6-1

**C**
- Calculating Conduction Velocities 5-10
- Capturing a record screen image 4-13
- Capturing a test screen video 4-13
- Capturing screen display images and videos 4-13
- Caution label 1-d
- Changing the nerve name 5-11
- Changing the screen display 5-8
- Changing the Sensitivity (SNS) 5-4
- Changing the Stimulus Rate 5-5
- Cleaning 1-6
- Comfort Probe (RS10) 2-18
- Comfort Probe Plus (WR50) 2-18
- Comfort Probe Plus stimulator icons 2-18
- Common Procedures 5-1
- Conduction Velocities 5-10
- Conduction Velocities - Calculating 5-10
- Connect the stimulating electrodes 4-8
- Connecting the system components 1-6
- Contact information 1-b
- Create / select a patient record 4-9
- Creating / updating a report 4-12
- Creating a new patient information record 3-3

**D**
- Deleting a patient information record 3-4
- Device continuity maintenance and installation test 1-3
- Display Prompt Area (DPA) 2-28
- Displaying the Acquisition Set panel 2-29
- Disposal at the end of operating life 1-e
- DPA (Display Prompt Area) 2-28

**E**
- Easy Riser tray 2-1
- ECR16 amplifier 2-15
- Editing a patient information record 3-3
- Editing a visit record 3-4
- Electromagnetic Compatibility (EMC) 1-d
- Equipment classifications 1-4
- Erasing data 5-11, 5-12
- Example Motor Nerve Conduction Study 4-7
- Example record window summaries 4-4
  - Synergy EDX 21 Motor Nerve Conduction Study 4-5
  - Viking EDX 21 Motor Nerve Conduction Study 4-4
- Exiting NicVue 4-6
- Exiting the software 2-32

**F**
- Filters
  - Applying Filter settings to a single channel from the Toolbar 2-31
  - Applying Filter settings to all channels from the Toolbar 2-31

**H**
- HB-1 and HB-2 headbox (ECR16) 2-17
- HB-6 headbox (AT2+6) 2-16
- HB-7 headbox (AT2+6) 2-16
- Header bar 2-27
- Help 2-26
- Home page menus 2-26
  - Help 2-26
  - New Patient 2-26
  - Patients 2-26
  - Report 2-26
  - Select Test 2-26
  - Test History 2-26
  - Test Screen 2-26

**I**
- Importing all Viking Tests and System Setup 6-4
- Importing legacy Viking settings 6-4
- Importing legacy Viking Settings Setup 6-1
- Importing only the selected Viking Setups 6-4
- Indications for use statement 1-a
- Inspecting the system 1-e
- Installation and servicing instructions 1-3
- Intended operator 1-4

**L**
- Labels and symbols 1-c
- Launching the system software 2-25
- Logging in 2-25

**M**
- Maintenance 1-e
- Markers
  - Activating 5-9
  - Moving markers on a trace 5-7
  - No Response 5-7
  - Placing markers 5-6
  - Placing markers automatically 5-6
  - Placing markers manually 5-6
  - Resetting the markers 5-7
Nicolet EDX

Measuring patient temperature 5-10
Menu bar 2-27

N
Nerve list - Viewing 5-11
Nerve name - Changing 5-11
New Patient 2-26
Nicolet EDX Base Unit front panel icons 2-22
Nicolet EDX Base Unit label icons 2-23
Nicolet EDX Base Unit rear panel icons 2-20
Nicolet EDX Copyright 1-f
Nicolet EDX electrical stimulator probes 2-18
NicVue - Starting 4-6
NicVue (option) 3-5

P
Patient Information 3-1
Patient information record
  Creating a new patient record 3-3
  Deleting a patient record 3-4
Patient temperature 5-10
Patient temperature - Measuring 5-10
Patients 2-26
Patients screen 3-3
Performing an Exam 4-1
Pointing device 2-8
Powering the system 2-24
Preventive maintenance 1-e
Printing a standard data report 4-12
Protective and equipment classifications 1-4

Q
Quick Access bar 2-28

R
Recalling a patient for testing 3-5
Removing a patient 3-5
Repetitive acquisition 5-5
Report 2-26
Restoring settings 6-1
Restoring settings and test folders 6-3
Reviewing a test screen video 4-13

S
S403 probe 2-18
Safety reference guide 1-d
Safety summary 1-d
Saving test data 4-12
Screen display 5-8
Screen display - Changing 5-8
Select a test 4-10
Select Test 2-26
Selecting Repetitive or Single sweep acquisition 5-5
Sensitivity (SNS) 5-4
Setting up a report 5-13
Setting up the system 4-6
  Getting started 4-6
  Starting / exiting NicVue 4-6
  Turning on the system 4-6
  Side - Choosing for the exam 5-11
  Single sweep acquisition 5-5
  Software copyright protection 1-g
  SP1/SP2 Stim-Switching Units 2-19
  Specification and accuracy information 1-3
  Starting NicVue 4-6
  Stimulus Duration 5-4
  Stimulus Rate 5-5
  Summary of steps 4-3
  Superimposing traces 5-9
  Symbols 1-e
  Synergy EDX 21 control panel 2-8
    Adjustment dials 2-8
  System Basics 2-1
  System essential performance 1-4

T
Technical description 1-3
Test History 2-26
Test Screen 2-26
Test screen controls 2-27
  Function Key Area 2-28
  Header bar 2-27
  Menu bar 2-27
  Quick Access bar 2-28
  Toolbar 2-27
  Toolbar 2-27
  Turning the printer on and off 2-24
  Turning the system on 2-24
  Turning the Viking EDX 21 / Synergy EDX 21 system off 2-32

U
Using the Easy Riser tray 2-1
Using this guide 1-5

V
Viewing the Nerve list 5-11
Viking EDX 21 control panel 2-3
  Adjustment dials 2-4
  Cursor wheel 2-4
  Hardkeys 2-3
  Softkeys 2-3

W
Warning label 1-d