

# Nicolet Ambulatory EEG

## Specifications

### General Specifications

#### Dimensions

**Ambulatory EEG Recorder** 4.75" H x 4.7" W x 1.57" D  
(121 mm H x 120 mm W x 39 mm D)

**Patient Connection Unit (PCU)** 6.9" H x 3.2" W x .8" D  
(175 mm H x 81 mm W x 20 mm D)

#### Weight

Ambulatory EEG Recorder (Including batteries and flashstorage card)  
15.2 oz (431 g)

Patient Connection Unit (PCU) 3.4 oz (95 g)

#### Power Supply

9V DC normal operating power provided via 2 x 9-volt batteries  
(ANSI 1604A Alkaline or ANSI 1640LC lithium)

Internal battery to supply power for up to 2 minutes when changing batteries.

#### Medical Grade Power Supply for use during system set-up:

Input 100 – 240 Vac +/-10%, 50-60 Hz. 1.0 A

Output 12.0 V DC 2.5 A max.

#### Data Storage

Compact Flash (CF) Type 1 card slot in recorder

1 x 2 GB Compact Flash memory card supplied with recorder

#### Recording Time

Dependant on media size, number of data channels collected, data sampling rate, and quality and type of batteries, up to 72 hours (19 Channels @ 200 HZ with Auxiliary Battery Pack and three Lithium Manganese Dioxide batteries).

#### Display

NicoletOne Ambulatory recorder features a 1.4" x 0.4" (36 mm x 9 mm) LCD showing: Time of Day, Elapsed Time (Period of Data Recorded), Battery Level/Power Status, Recording Status, amount of storage space available.

#### Controls

Nicolet Ambulatory recorder features a single multifunction push button control for power on/off, patient event marks, display backlight and display refresh.

#### Connections

Patient Connection Unit (PCU) connector

Micro-D connector for connecting optional equipment

RJ45 connector for Host PC and power supply connection

#### Operating Conditions

Relative Humidity 25% to 95% non-condensing

Temperature +10° C to + 40° C

Atmospheric Pressure Range of 700 hPa to 1060 hPa

#### Storage Requirements

Relative Humidity 10% to 95%

Temperature -10° C to +50° C

Atmospheric Pressure Range of 500 hPa to 1060 hPa

### Amplifier

#### Channels/Inputs

34 active electrode-level inputs, touch proof type to DIN 42 802, 32 inputs may be configured for referential recording. Alternatively, 16 of the electrode inputs can be configured (via set-up software) for true bipolar recording (e.g. for polygraphic signal acquisition as either AC or DC channels)

4 Auxiliary high-level (DC) inputs (Option)

Nonin X-Pod pulse oximeter (Option)

**Analog to Digital Converter** 16 bit with sample and hold on all channels

**Analog to Digital Resolution** 0.153  $\mu$ V

**DC Offset Tolerance** +/- 250 mV (+/- 2.5 V for optional Auxiliary high-level DC inputs)

**Maximum Input Range** 10 mV pk-pk

**Bandwidth** 0.16 Hz to 70 Hz (-6 dB)

**Noise** < 3  $\mu$ V pk-pk @ 0.16-70 Hz

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\*The 688-626600 and 688-626700 upgrade kits are for recorders that do not already have the "L" bracket mounted to the back. The 842-692400 and 842-692500 option kits are for new systems and recorders that have already been retrofitted with the "L" bracket.



**Input Impedance** 100 M $\Omega$

#### Optional Equipment

The Nicolet Ambulatory EEG system supports the following optional equipment:

- External Patient Event Button
- Nonin Xpod pulse oximeter
- Auxiliary Input Box providing 4 high level DC inputs with integrated Patient Event Button
- Auxiliary Batter Pack
- Auxiliary Battery Pack with integrated Patient Event Button

#### Common Mode Rejection Ratio (CMRR) at patient inputs

>100 dB (with active patient ground connected)

**Input Bias Current** < +/- 25nA

**Sample Rate** User selectable via software from 200, 128, 100, 64, 50, 32, 25, 16, 8, 4, 2, 1 Hz

The table below lists the valid configurations of the Ambulatory Recorder with Optional Equipment:

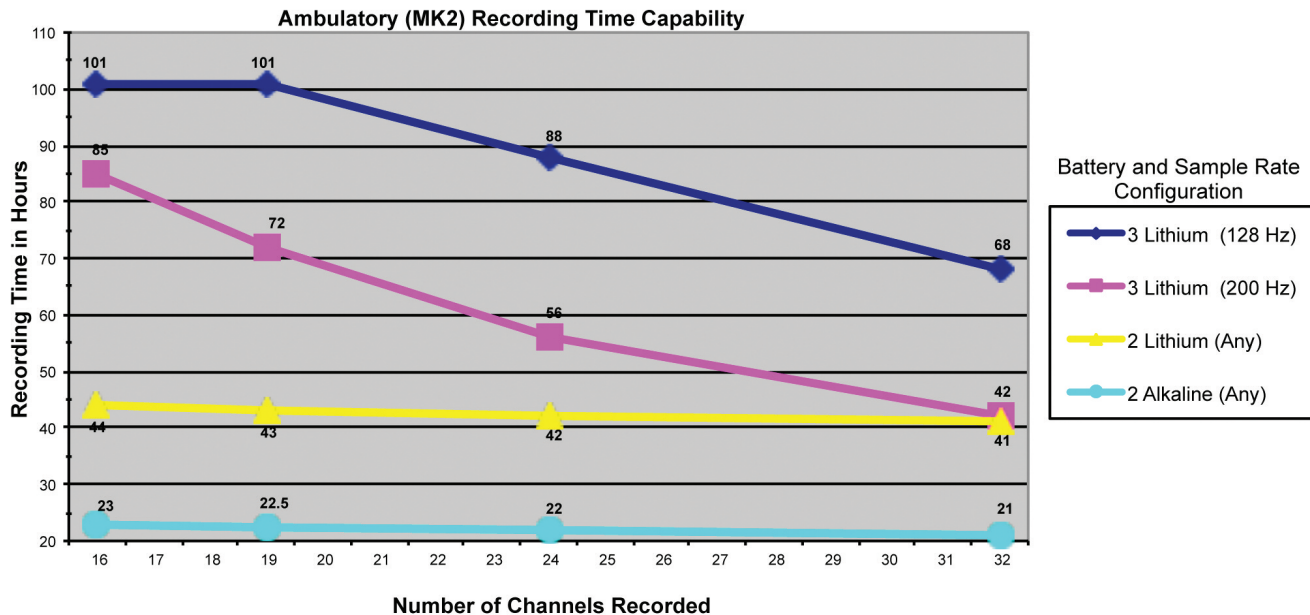
Recorder +	Configuration A	Configuration B	Configuration C	Configuration D	Configuration E	Configuration F	Configuration G
085-469100 Ambulatory EEG Pushbutton cable	X			X			
110C004 Ambulatory EEG NONIN XPOD + CABLE		X			X		
110C005 Ambulatory EEG auxilliary I/P box			X	X	X		
688-626600 Ambulatory Auxiliary Battery Kit Upgrade* or 842-692400 Ambulatory Auxiliary Battery Kit Option						X	
688-626700 Ambulatory Auxiliary Battery Kit w/ Push Button Upgrade* or 842-692500 Ambulatory Auxiliary Battery Kit w/ Push Button Option							X



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### Software

#### Setup and Review

NicoletOne nEEG and Reader software provides all set-up and review capabilities (requires Windows 2000 or XP-Professional based PC with  $\geq 3$  USB 2.0 ports available). Note: 3rd party review software applications which offer compatibility with European Data format (EDF) files may also be used for review.

#### Data Management

Choice of NicVue™ or StudyRoom patient/data management software applications.

#### Optional Review/Analysis Software Options

- Spike and Seizure Detection software option
- Topographic Mapping option
- Trend Analysis software option
- Sleep Analysis software option

### Quality System

Developed for CareFusion Nicolet by Lifelines. Designed and manufactured by G&B Electronics Ltd., United Kingdom, and marketed by CareFusion Nicolet under ISO13485 certified quality system. The manufacturer and CareFusion NeuroCare reserve the right to change the specification. This policy is in conjunction with continuous product improvements.

### Compliance/Regulatory Standards

Designed, certified and manufactured to meet the following US, Canadian, European and International standards:

- UL 60601-1** Medical Electrical Safety Standard (USA)
- CAN/CSA-C22.2 no. 601.1-M90** Medical Electrical Safety Standard (Canada)
- EN/IEC 60601-1** Medical Electrical Safety of Medical Equipment (International and Europe)
- EN/IEC 60601-2-26** Particular safety of electroencephalographs equipment
- EN/IEC 60601-1-2** Collateral safety standard for EMC
- European Community (CE Mark)** Medical Device Directive (MDD) product

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