nox medical

nox A1®

A new era in sleep diagnostics

Nox Medical Introduction

Nox A1 – Full PSG – AASM Compliant

With decades of clinical and engineering excellence behind, Nox Medical continues to deliver solutions to the world of sleep diagnostics which break the mould. Through innovative thinking, knowledge, experience, and collaboration from world leading physicians, Nox Medical has identified common issues with last generation's technology and now introduces a system which is ready for the future and opens a new era in sleep diagnostics.

The new Nox A1 PSG system is a next generation polysomnography system that greatly simplifies the task of performing a sleep study while delivering more secure and precise measurements than ever before. Innovations in a number of key areas such as ergonomics, robustness, scalability and new technology are combined to create the next generation of PSG systems.

Specific features such as very small physical size make the system ideal for patient comfort. The system's scalable design allows for performing simple home tests up to intensive in-lab online recordings combined with multiple 3rd party devices. The Nox A1's optimized design of cable leads minimizes the effort needed for hookup, cleaning and service. Through wireless communications with sensors and auxiliary devices the possibilities for multiple interfaces and configurations are opened while giving the patient freedom to move around. Flexibility is guaranteed through full remote BioCal, impedance check, configuration and signal monitoring over the Noxturnal App on tablets. The sophistication of the system is completed 256 kHz simultaneous sampling rate which delivers unsurpassed signal quality.

Combining the Nox A1 with the powerful Noxturnal software unleashes the full potential of the solution. Offering automatic analysis to assist clinicians, scoring and reporting, Noxturnal greatly simplifies the task of preparing a sleep study for the correct interpretation by physicians.

UNMATCHED SIMPLICITY IN PSG SETUP

- Small and lightweight PSG recorder
- Easy setup enabling home sleep testing
- Scales to online recordings using the Nox C1 Access Point
- Minimum number of cables and straps
- Highly improved ergonomics
- Time and effort saving
- Integrated ambient light sensor supports scoring

EXCEPTIONAL SIGNAL QUALITY

- Continuous impedance control
- Ensures signal synchroncy
- High frequency sampling at 256 kHz for advanced noise reduction and anti-aliasing
- Power line noise effect elimination through wireless technology
- 32 bit signal processing

Portable and Online Capabilities

Revolution in comfort and ergonomics

The Next Generation of PSG Systems

Expands the boundaries for sleep clinics

ADVANCED TECHNOLOGY

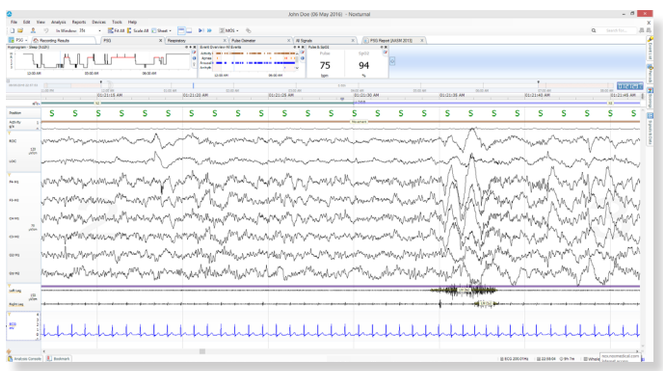
- 10 unipolar inputs for EOG and EEG
- 3 unipolar EMG sub-mental inputs
- 4 configurable bipolar inputs (Thermistor, ECG, EMG, General Purpose)
- Sound from built in microphone
- Pressure from Nasal and Mask cannula
- Position and activity from built in 3D acceleration sensor
- Two channels of respiratory effort from RIP belts circulating the Thorax and Abdomen
- Pulse, SpO2, and Plethysmography from a Bluetooth® enabled oximeter
- Bluetooth® enabled interface with various external devices
- Light detector
- Disposable or rechargeable battery (AA)
- Scalable for online recordings and up to 12 DC channels with the Nox C1 Access Point

POWERFUL AND USER FRIENDLY SOFTWARE

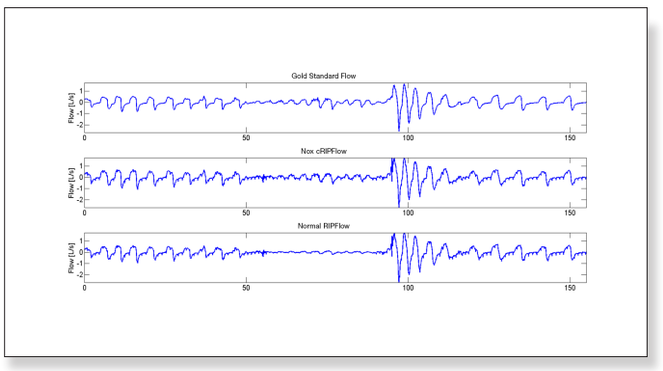
- Extended AASM standard PSG recording
- Immediate recording results with automatic analysis
- Calibrated RIP technology
- Flow Volume loops
- Pleth Waveform analysis
- Customizable workspace layout
- Centralized settings for multi-user environments
- Microsoft Word™ like customizable reports
- Easy to create new statistical fields for reporting
- Single click scoring
- Audio playback

RECORDING RESULTS

SIGNAL SHEET



CALIBRATED RIP



The Nox A1 System Extends and Adapts

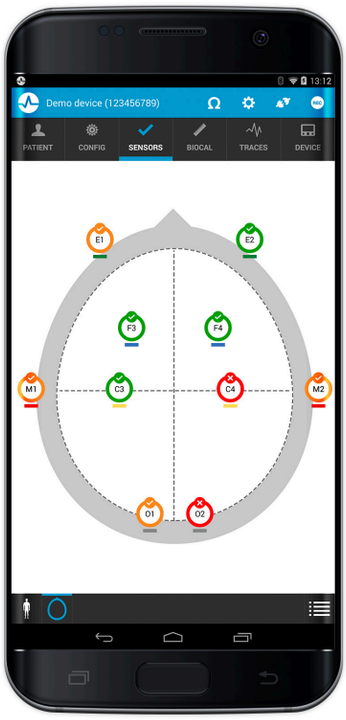
Easily apply the system to different scenarios

TABLET APPLICATION

- Connects wirelessly
- Enables setting up the recorder
- Perform biocalibration and impedance checks next to patient
- Review signal quality of sensors
- View live traces
- Runs on the Android™ platform

NOX C1 ACCESS POINT

- Extends the system to enable online recordings
- Up to 12 additional DC channels for connecting 3rd party devices
- Wireless connection using Bluetooth® technology
- Built in Differential Pressure Sensor
- 2 x USB Ports
- 2 x RS-232 Serial Ports
- LAN port
- Ambient Light Sensor



NOXA1BROCHURE-REV1 LBL-0002-REV1 Issue date: August 2016

Technical Specifications

Nox A1 Device:

Signal Specifications:	
13x Unipolar Channels	Touch proof connector DIN 42-802, ±8mV input range AC < 1 µVrms noise, 90 Hz BW, 256 kHz Sampling rate
4x Bipolar Channels	Key hole connector, ±350mV input range DC or AC < 1 µVrms noise, 90 Hz BW, 256 kHz Sampling rate
2x RIP Channels	Thorax and Abdomen Respiratory Inductance Plethysmography
1x Flow/Pressure Channel	>60 cmH2O input pressure range, DC-90 Hz, <1 mmH2O noise
1x Sound Channel	8kHz sampling, Internal 3.6 kHz bandwidth, 24-bit ADC
3x Activity/Position Channel	Internal 3 axis, ±2 g
1x Wireless Interface	Bluetooth® V2.0 wireless interface for external devices
1x Ambient Light	1 Hz
Performance Specifications:	
Storage Capacity	1 GB
Recording Time	Up to 12 hours
PC Communications	USB 2.0 hi-speed
Physical Specifications:	
Power Source	One 1.5V AA battery during recording; Host PC USB during data download
Battery Type	Nickel-metal hydride rechargeable (NiMH), Lithium
Device Dimension	82 mm W x 63 mm H x 21 mm D (3.23 in W x 2.48 in H x 0.83 in D)
Weight	132 grams (0.29 pounds)
Display	Type OLED-Dimensions 19 x 35 mm (0.75 x 1.38 in), resolution 128 x 64 dots
Battery Cover	Tamper proof and locked
USB 2.0 Connection	USB-Mini type B

Software:

Minimum PC Requirements	
	Windows® Vista and higher Processor: X86 Intel based or AMD 1.7 GHz 512MB RAM, 1 GB of free disk space Resolution: 1024 x 768 or higher

Distributed by:

CE 0086

Manufactured by: Nox Medical | Katrinartuni 2 | 105 Reykjavik | Iceland | +(354) 570 7170 | info@noxmedical.com | noxmedical.com