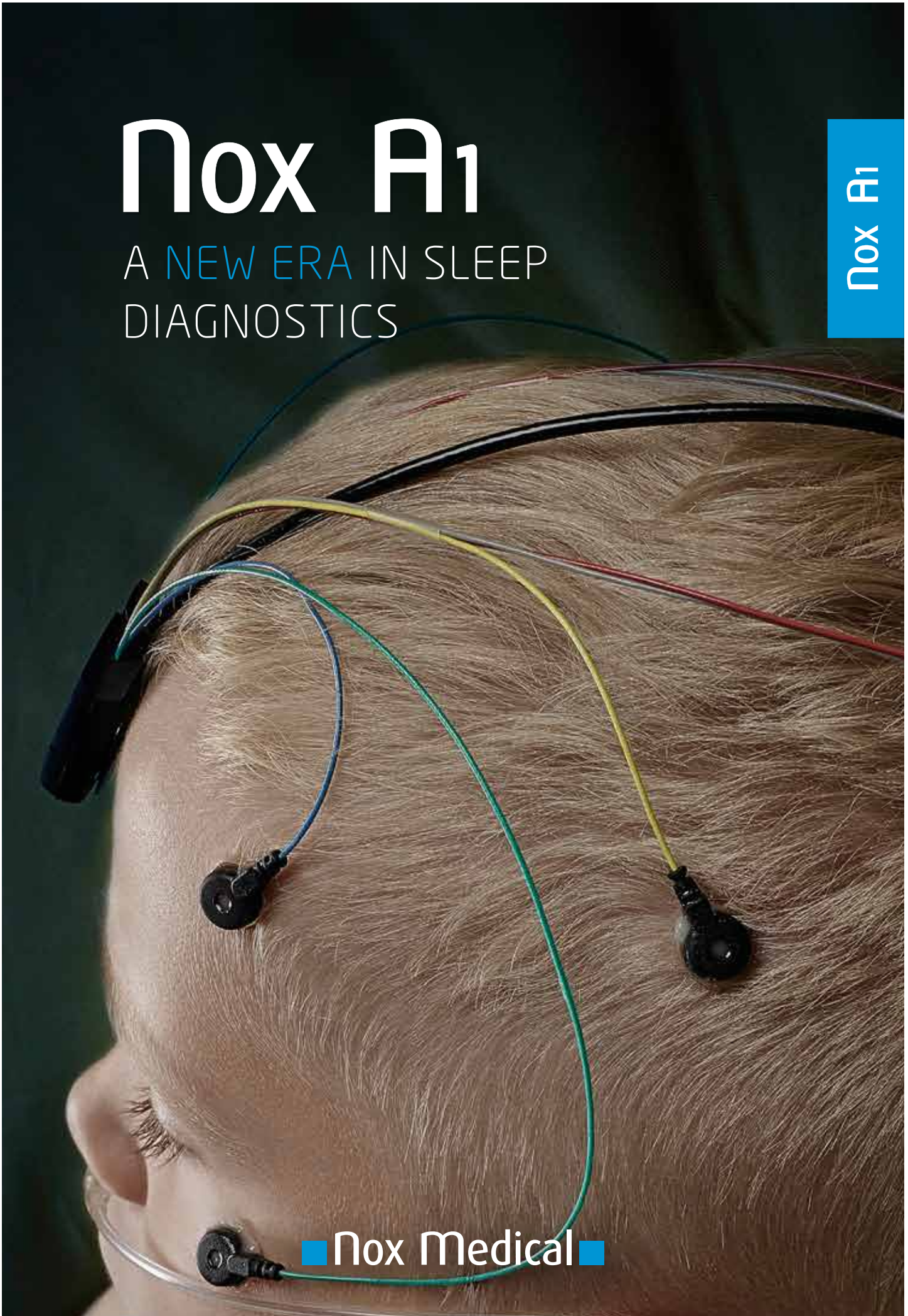


# Nox A1

A NEW ERA IN SLEEP  
DIAGNOSTICS

Nox A1

■ Nox Medical ■







**Revolution**  
in patient comfort  
and ergonomics

# 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 mold. 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 that is **ready for the future** and opens a new era in sleep diagnostics.

The new NOX-A1 PSG system is a **full, portable 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, flexibility 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 ambulatory and pediatric measurements**. The NOX-A1's optimized design of cable leads **minimize the effort needed for hookup, cleaning and service**, while minimizing electrode pull. The use of intelligent re-referencing **secures study integrity throughout the night**. Through wireless communications with sensors and auxiliary devices the possibilities for **endless 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 tablets**. The sophistication of the system is completed with **audio recording capabilities and 256 kHz simultaneous sampling rate, allowing for high performance re-referencing**.

Combining the NOX-A1 with the powerful Noxturnal software unleashes the full potential of the solution. Offering automatic analysis, 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
- 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
- Automatic reference adjustment
- Ensuring signal synchrony
- 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

# THE NEXT GENERATION OF PSG SYSTEMS



## ADVANCED TECHNOLOGY

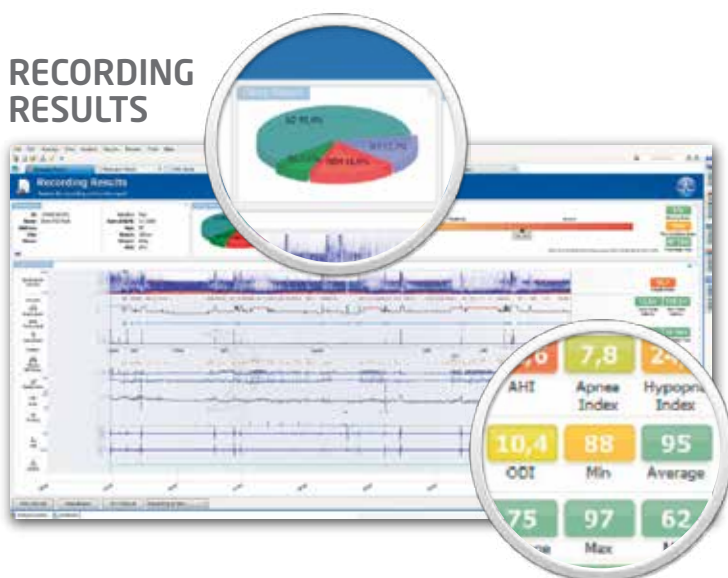
- 10 unipolar inputs for EOG and EEG
- 3 unipolar EMG Sub-mental inputs
- 4 configurable bipolar inputs (Thermistor, EKG, EMG, multi-channel GSR)
- Sound from built in microphone
- Pressure from Nasal and Mask cannula
- 3-D Acceleration from built in acceleration sensor
- Two channels of respiratory effort from RIP belts circulating the Thorax and Abdomen
- Pulse, SpO2 and Plethysmography from a wireless Bluetooth® oximetry
- Bluetooth interface with various external devices
- Light detector
- Standard disposable or rechargeable battery (AA)



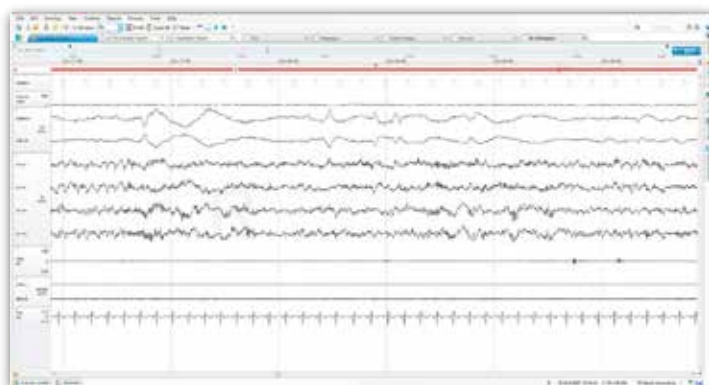
## POWERFUL AND USER FRIENDLY SOFTWARE

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

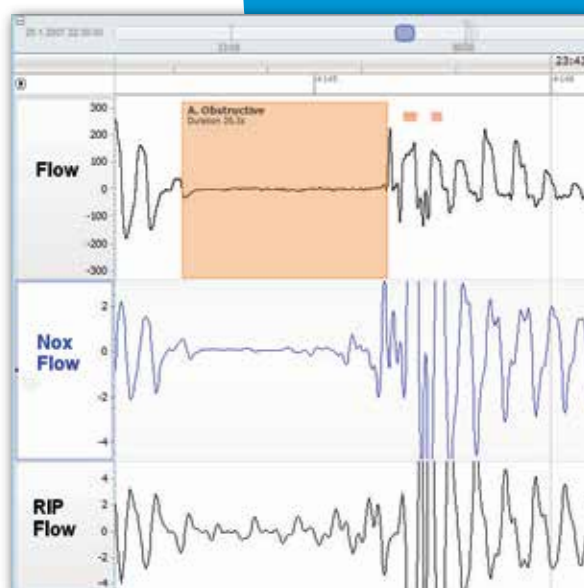
## RECORDING RESULTS



## SIGNAL SHEET



Calibrated  
RIP







## 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



Audio  
Recording and  
playback

Small  
Physical  
Size

# Nox A1

## TECHNICAL SPECIFICATIONS

### DEVICE

#### Signal Specifications:

13x Unipolar Channels	Automated Referencing
	Touch proof connector DIN 42-802, $\pm 8\text{mV}$ input range AC < $1\ \mu\text{Vrms}$ noise, 90 Hz BW, 256 kHz Sampling rate
4x Bipolar Channels	Key hole connector, $\pm 350\text{mV}$ input range DC or AC < $1\ \mu\text{Vrms}$ noise, 90 Hz BW, 256 kHz Sampling rate
2x RIP	Thorax and Abdomen Respiratory Inductance Plethysmography
1x Flow/Pressure signal	>60 cmH <sub>2</sub> O input pressure range, DC-90 Hz, <1 mmH <sub>2</sub> O noise
1x Sound signals	8kHz sampling, Internal 3.6 kHz bandwidth, 24-bit ADC
3x Activity/Position signals	Internal 3 axis, $\pm 2\ \text{g}$
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 9 hour including true audio recording
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	Alkaline primary, nickel-metal hydride rechargeable (NiMH), Lithium
Power source	One 1.5V AA battery during recording; Host PC USB during data download
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	89 grams (0.19 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 XP Home, Windows XP Professional SP 2, Windows Vista, 32 and 64 bit, Windows 7, 32 and 64 bit, Windows 8, 32 and 64 bit  
 Processor: X86 Intel based or AMD 1.2 GHz  
 512MB RAM, 1 GB of free disk space  
 Resolution: 1024 x 768 or higher

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