nox MEDICAL

Product Portfolio

noxmedical.com

The Nox RIP Belts

Foundational piece of every Nox diagnostic test

When a patient undergoes a sleep study with Nox Medical's diagnostic equipment, whether at home or in the lab, the patient's breathing throughout the night is recorded with the patented Nox respiratory inductance plethysmograph (RIP) belts.

>> Nox RIP consists of two RIP belts, aligning with the American Academy of Sleep Medicine's recommendation as the preferred method for measuring respiratory effort in home sleep tests[3].

>> The Nox RIP technology is continuously calibrated, eliminating the need for time-consuming and disruptive manual calibrations to adjust for position changes during a sleep study.

>> Nox RIP flow has proven to be a reliable surrogate for the cannula flow in scoring respiratory events [4],[5],[6].

>> Single patient-use for high signal quality and hygienic operation.

Nox Medical is Leading the Way with Artificial Intelligence

Data scientists at Nox Medical are leading the charge in sleep medicine's AI revolution, dedicating their efforts to developing innovative algorithms that enhance our understanding of sleep disorders, elevate patient care and increase efficiency in sleep lab operations.

>> AI algorithms backed by multiple research studies.

>> AI analyses validated across diverse populations, considering factors like gender, age, and geography.

>> The Noxturnal software incorporates a wide range of AI analyses, including sleep staging, arousal scoring, and Nox BodySleep analysis.

[3] Troester MM, Quan SF, Berry RB, et al; for the American Academy of Sleep Medicine. The AASM Manual for the Scoring of Sleep and Associated Events: Rules, Terminology and Technical Specifications. Version 3. Darien, IL: American Academy of Sleep Medicine; 2023.

[4] Chang Y, Xu L, Han F, Keenan BT, Kneeland-Szanto E, Zhang R, Zhang W, Yu Y, Zuo Y, Pack AI, Kuna ST. Validation of the Nox-T3 portable monitor for diagnosis of obstructive sleep apnea in patients with chronic obstructive pulmonary disease. J Clin Sleep Med. 2019;15(4):587–596. https://doi.org/10.5664/jcsm.7720

[5] Magalang UJ, Johns JN, Wood KA, Mindel JW, Lim DC, Bittencourt LR, Chen NH, Cistulli PA, Gíslason T, Arnardottir ES, Penzel T, Tufik S, Pack AI. Home sleep apnea testing: comparison of manual and automated scoring across international sleep centers. Sleep Breath. 2019 Mar;23(1):25-31. doi: 10.1007/s11325-018-1715-6.

[6] Xu L, Han F, Keenan BT, Kneeland-Szanto E, Yan H, Dong X, Chang Y, Zhao L, Zhang X, Li J, Pack AI, Kuna ST. Validation of the Nox-T3 Portable Monitor for Diagnosis of Obstructive Sleep Apnea in Chinese Adults. J Clin Sleep Med. 2017 May 15;13(5):675-683. doi: 10.5664/jcsm.6582.

Nox Medical:

A Vision for the Future of Sleep Medicine

Wake up to a brighter world

Nox Medical is a global leader in the science of sleep, transforming millions of patients' lives through streamlined diagnostic care, comfort, and accurate diagnoses. By addressing common diagnostic pain points with easy-to-use sleep diagnostic technology that prioritizes patient comfort and reliable results, Nox Medical enables sleep healthcare providers to work more efficiently and streamline operations, ultimately enhancing the assessment, diagnosis, and treatment of the full spectrum of sleep health issues.

Nox A1s™ PSG System

Built for the lab, ready for the home

The Nox A1s is a tether-free polysomnography system that is engineered for simplified setup, enhanced patient comfort, and optimized in-lab workflow while also offering flexibility for ambulatory PSG testing.

>> Meets the AASM standards for full in-laboratory PSG testing[1].

>> Lightweight, tether-free cable design that optimizes patient comfort and integrates all necessary EEG signals into a single cable, eliminating the traditional headbox.

>> Integrated calibrated Nox RIP technology, PTAF, snore microphone, and body position technology for more streamlined operations and reduced setup time.

>> Designed to deliver consistently high-quality PSG signals by recording at industry-leading sampling rates (512kHz for ExG signals and 200Hz for RIP belts, 200Hz for Pressure signals).

>> Uniquely designed to bring the capabilities of an in-lab PSG test to unattended home settings.

>> The Noxturnal Android app is a powerful tool for bedside control, offering bio-calibration, impedance checks, and live trace viewing.

>> The Nox A1s is intended for use on patients aged 2 years and older.

Nox A1s Technical Specifications
https://noxmedical.com/technical-specifications-a1s/

Nox C1 Access Point

The Nox C1 Access Point is a wireless access point that enables measurement, receiving and streaming of physiological signals during sleep. The Nox C1 is intended to be used with the Nox A1s system to enable online functionality of the system.

>> Allows recorded signals from the Nox A1s to wirelessly transmit to the control room.

>> 12 auxiliary DC input channels.

>> 2 x USB Ports.

>> 2 x RS-232 Serial Ports.

>> 2 x Pressure Sensor Channels.

>> LAN port.

>> Ambient Light Sensor.

[1] Troester MM, Quan SF, Berry RB, et al. For the American Academy of Sleep Medicine. The AASM Manual for the Scoring of Sleep and Associated Events; Rules, Terminology and Technical Specifications. Version 3. Darien, IL: American Academy of Sleep Medicine; 2023.

Nox SAS™ PSG Solution

Polysomnography made simple, in-lab and at-home

Using the Nox SAS solution with the Nox A1s offers a new approach to conducting full polysomnography (PSG) studies. The solution records all the typical physiological signals—EEG, EOG, EMG, and ECG—with a high level of agreement for all sleep stages when compared to conventional PSG studies[2]. The streamlined setup of Nox SAS is designed to be easy to apply and time-saving.

» Compatible with the Nox A1s PSG system.

» Records EEG, EOG, EMG and ECG, respiratory effort with calibrated Nox RIP technology, nasal airflow, and oxygen saturation.

» Provides flexibility for full PSG sleep studies in both lab and home settings.

» Fewer wires and tether-free setup for patient comfort and easier application.

» Designed for ease of use, minimizing training and supervision requirements to save time and streamline workflows for sleep professionals.

» Indicated for use in adult patients.

[2] Punjabi NM, Kaplan PW, Margolick J, Aurora RN. 0319 A Simplified Bipolar Frontal Montage for Recording and Staging Sleep. Sleep. 2018;41:A122-A122. doi:10.1093/sleep/zsy061.318

Nox T3s™ HSAT System

See everything at once

The Nox T3s is a versatile Type III home sleep test designed for patient comfort and simple setup. With 24 channels, including customizable bi-polar options and refined calibrated Nox RIP technology, it provides comprehensive data collection and flow measurement. The lightweight and comfortable sleep recorder is known for its proven reliability with more than 25,000 sold units worldwide.

Nox T3s Technical Specifications
https://noxmedical.com/technical-specifications-t3s/

>> 24 channels (15 Recorded Channels. 9 Derived signals).

>> Two customizable bi-polar channels (ECG, EMG, EOG, EEG).

>> Refined calibrated Nox RIP technology that can be used as a primary flow measurement.

>> Two integrated methods for recording snoring.

>> 24-hour recording time with 1x AA battery and 4GB storage capacity for multiple night studies.

>> Chain of Custody Assurance available.

>> The Nox T3s is intended for use on patients aged 2 years and older.
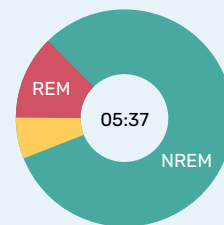
Nox BodySleep™

Sleep time estimation using breathing parameters

Experience a breakthrough in home sleep testing with the Nox T3s, featuring the advanced Nox BodySleep analysis. This novel analysis empowers sleep professionals to assess sleep states—REM, NREM, and Wake—in a home environment. Utilizing sophisticated AI algorithms and Nox's refined calibrated RIP technology, Nox BodySleep delivers sleep state differentiation based solely on respiratory data, eliminating the need for traditional EEG, EOG, and EMG signals.

Sleep Parameters

Sleep Time: **05:37**
Sleep Efficiency: **94.1%**
REM: 12.9%
NREM: 81.4%
Wake: 5.8%

A chart showing sleep stages from Nox BodySleep analysis

>> Differentiates between REM, NREM, and Wake states using advanced algorithms.

>> Sleep state assessment without traditional brain state measurements.

>> Utilizes calibrated Nox RIP technology to interpret physiological changes linked to sleep stages.

Noxturnal Software for Scoring, Analyzing and Interpreting Sleep Studies

The Noxturnal software unleashes the full potential of the Nox A1s and Nox T3s sleep recorders. Offering study configuration, automatic analysis, scoring, and advanced reporting tools, Noxturnal is a powerful tool in the hands of any qualified clinician. Noxturnal comes with all diagnostics testing systems free of charge.

» Full featured raw data analysis and scoring.

» Powerful and flexible reporting capabilities to meet physician requirements.

» Accurate and reliable automatic scoring analysis.

» Easily customizable reports include tables, graphs, and narrative interpretation.

» Import or export EDF format.

» Continuous monitoring of impedances.

» Single click scoring.

» Allows for customized MSLT and MWT sleep studies, split-night and titration studies.

» Integrated AI-powered analysis, including an artificial neural network for sleep staging and arousal scoring.
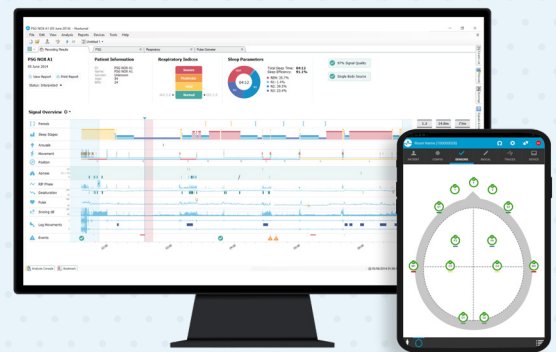
Noxturnal EMR Interface

The Noxturnal EMR Interface is a single solution for connecting all of your Nox Medical devices.

» HL7 connection.

» Bi-directional EMR interface.

» PDF reports can be exported.

» Connects to all major EMR systems.
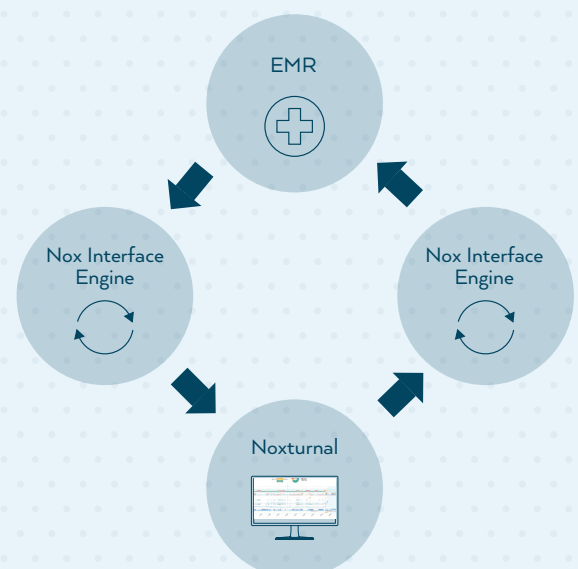
Sleep Diagnostics Everywhere
They are Needed

Whether you are running a large medical center sleep lab or a small private clinic, Nox Medical provides all the equipment you need to offer every level of diagnostic care, including in-lab polysomnography (PSG), at-home PSG, home sleep apnea testing (HSAT), sleep scoring with advanced AI analyses and reporting.

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