The Innovation in Holter ECG
Sleep-Disordered Breathing Diagnosis for the Cardiologist

**SIMPLE:**
- 1 VistaO₂ Recorder
- 1 Flow Sensor
- 1 Flow Sensor ECG Cable
- 5 ECG Electrodes
- 1 Cannula*
- 1 Wristwatch Oximeter*

**COST EFFECTIVE:** Single Holter ECG Procedure

*Nighttime use only
The 1ST HOLTER POLYGRAPH combining ECG, OXIMETRY, RESPIRATORY EFFORT & NASAL FLOW

An SIMPLE
for Visualising and Respiratory signal from standard ECG cable
Bluetooth® communication between oximeter and VistaO₂
Nasal Flow and Position Sensor

Simultaneously review ECG and Arrhythmias with Respiratory and Oximetry signals

EXPANDED DETECTION of Sleep-Disordered Breathing for your cardiovascular patients

- Efficient AUTOMATIC analysis and Hypopnoea Events
- Indication of the TYPE OF A Sleep Apnoea
- VISUALISATION of Cardiac and Obstructive, mixed
- CLEAR & COMPREHENSIVE
Validated Indexes
An SIMPLE & COMPREHENSIVE Clinical Tool
for Visualising and Analysing Cardio-Respiratory Activities

- Simultaneously review ECG and Arrhythmias with Respiratory and Oximetry signals
- Continuous Cardiac Rhythm
- Sleep Apnoea Event
- Oximetry Event

- Efficient AUTOMATIC analysis of Apnoea and Hypopnoea Events
- Indication of the TYPE OF APNOEA: central, obstructive, mixed
- VISUALISATION of Cardiac Arrhythmias and Sleep Apnoea RELATIONSHIP
- CLEAR & COMPREHENSIVE Report with Validated Indexes
TIME TO DETECT SLEEP APNOEA IN CARDIOLOGY PATIENTS

HIGH PREVALENCE (30%)

30% of Hypertensive patients have OSA*
37% of Heart Failure patients have OSA*
50% of cardioversion patients are likely to have OSA*

Consider all cardiovascular risks to better care for your patients

* Sleep Apnea and Cardiovascular Disease, an Expert Consensus Document
American Heart Association, American College of Cardiology, etc., Journal of the American College of Cardiology 2008
### VistaO₂

**Type of recorder**
- Holter ECG & Polygraph

**Data storage**
- 256/512 MB Compact Flash Card

**Duration of monitoring for ECG + Polygraph**
- 30 hours (2 channels) with NiMH batteries (1000mAh)
- 10 days max (2 channels)
- 8 days max (3 channels)

**Number of channels**
- 2 or 3

**Vertical resolution**
- 10 bits

**Sampling and storing rates (no compression)**
- 200Hz

**Data capture range**
- 12 mV (± 6 mV)

**ECG accuracy in time**
- ± 2.5 ms

**ECG accuracy in voltage**
- ± 6 μV

**Measurement**
- 3 axis accelerometer

**Sampling Rate**
- 10Hz

**Storage Rate**
- 1Hz

**Sampling and Storing Rates**
- 200Hz

**Vertical Resolution**
- 10 bits

**Snoring Detection**
- Mathematically derived by Software Algorithm

**Sampling Rate**
- 200Hz

**Vertical Resolution**
- 10 bits

**Derivation used**
- Green – Black electrodes

**Data capture range**
- 2 to 30 resp/min

**Sampling**
- 10Hz

**BT**

**Bluetooth®**
- Version 2.0

**SpO₂ sampling**
- 1Hz

**Power supply**
- 2x 1.5v AAA (alkaline, lithium or NiMH)

**Overall length**
- 85 mm

**Width**
- 54 mm

**Depth**
- 19 mm

**LCD display**
- 160 x 104 pixels

**Weight (batteries included)**
- 108 g

**Storage / Operating temperature**
- -20°C / +45°C / +10°C / +45°C

**Storage / Operating humidity**
- 10% → 95% (no condensing)

**Storage / Operating pressure**
- 500hPA → 1060hPA / 700hPA → 1060hPA

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### NONIN WristO₂™ 3150

**Bluetooth®**
- Version 2.0

**Oxygen saturation range**
- 0–100%

**SpO₂ accuracy**
- ±100% ± 2 digits

**Sampling frequency**
- 1Hz

**Power supply**
- Two 1.5 volt AAA alkaline batteries