

PM-2000A Pro/PM-2000A+

Portable and reliable total monitoring solution for intensive and alternative cares

Safety Standards

CE Marking in accordance to Council Directive 2007/47/EC concerning Medical Devices
IEC 60601-1+A1+A2; IEC 60601-1-2+A1

Physical Specification

Device dimension: 320 mm (L) x 150 mm (W) x 265 mm (H)
Weight: Standard Configuration 4.2 kg (with battery)

Display

Color TFT LCD 12.1" (M8) 10.4" (M8A)
Resolution: 800 X 600 dpi
Traces Displayed: up to 8
Waveforms Displayed: up to 13

Various Working Interface Selectable:

Standard Monitoring Display
Large Font Intensive Care Display
Bed to Bed View Display (Optional)
OxyCRG Dynamic View Display
Drug Dose Calculation Interface

Sweep Speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s

Environment requirement

Ambient Temperature: -20°C - 55°C (-4 - 131° F)
Humidity: 15%-95% non-condensing

Power Supply

External Power Supply
100-240V AC, 50/60Hz
Pmax=80VA
Internal Battery Power Supply
Type: Rechargeable Li-ion
14.8 V DC 2200 mAh
4400 mAh (optional)
Battery working period:
up to 4.5 hours
Recharging time < 150 minutes (2200 mAh)

RESP

Method: Trans-thoracic impedance
Operation mode: Auto/ Manual
RR Measurement range:
Adult: 0~120 rPM
Neonate/Pediatric: 0~150 rPM
Resolution: 1rPM
Apnea alarm threshold:
10s, 15s, 20s (default), 25s, 30s, 35s, 40s
Alarm: Yes, audible and visual alarm, alarm events recallable
Band width: 0.2-2.5Hz (-3dB)
Sweep speed: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s

ECG

Lead type: 5-lead and 3-lead selectable, 12-lead optional
3 leadwire cable: RA; LA; LL or R; L; F
5 leadwire cable: RA; LA; RL; LL; V or R; L; N; F; C
12-lead (including 3/5-lead) optional

Input: 10 leadwire cable: RA; LA; RL; LL; V1-V6 or R; L; N; F; C1-C6
Lead selection: 3-lead: I; II; III; 5-lead: I; II; III; aVR; aVL; aVF; V1-V6
12-lead: I; II; III; aVR; aVL; aVF; V1-V6
x0.125; x0.25; x0.5; x1; x2; x4; auto
Gain selection: 6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s
Sweep speed:
ECG HR Range:

Adult: 15-300bpm
Pediatric/Neonate: 15-350bpm
Resolution & accuracy: ± 1bpm or ± 1% whichever is greater
Filter: Diagnostic mode: 0.05-150Hz (optional 12-lead)
Monitoring mode: 0.5-40 Hz
Surgical mode: 1-20Hz
Protection: Withstand 5000VAC/50Hz Voltage in isolation against Defibrillation and electrosurgical interference

ST-Segment Detection:
Measurement range: -2.0 mV~2.0mV
Alarm range: -2.0 mV~2.0mV
ST-Segment Arrhythmia analysis and categorization: Yes
ARR Alarm: Audible and visual alarm, alarm events recallable
12 lead ECG analysis: 208 Reference Diagnostic Results
Pacemaker detection: Yes, and 5 types abnormal status detectable
IEC 60601-2-25; AAMI EC 11/EC 13
IEC 60601-2-27

NIBP

Method: Automatic Oscillometric
Operation modes: Manual/Automatic/Continuous
Auto measurement time interval: Adjustable
1 / 2 / 3 / 4 / 5 / 10 / 15 / 30 / 60 / 90 / 120 / 240 / 480 Minutes
Measurement unit: mmHg/kPa selectable
Measurement types: Systolic, Diastolic, Mean
Pressure range for Adults: Systolic: 40 - 270 mmHg
Diastolic: 10 - 215 mmHg
Mean: 20 - 235 mmHg
Pressure range for Pediatrics: Systolic: 40 - 200 mmHg
Diastolic: 10 - 150 mmHg
Mean: 20 - 165 mmHg
Pressure range for Neonates: Systolic: 40 - 135 mmHg
Diastolic: 10 - 100 mmHg
Mean: 20 - 110 mmHg

Leak test and pressure auto calibration: Yes
Over-pressure protection: Dual Safety protection
Resolution: 1mmHg
Accuracy: Max mean error: ± 5 mmHg
Max standard deviation: ± 8 mmHg
Alarm: Systolic, Diastolic, Mean
PR from NIBP: Measurement 40~240bpm
Resolution: 1bpm
Accuracy: 3bpm or 3% whichever is greater
Leak test and pressure auto calibration: Yes
IEC 60601-2-30

SpO2

Measurement & Alarm Range:
0 - 100% (SPO2)
Resolution: 1%;
Accuracy: ± 2% (70-100%, Adult/Pediatric)
± 3% (70-100%, Neonate)
PR Measurement and Alarm Range: 25 - 300bpm

Resolution: 1bpm
Accuracy: 3bpm
Refresh rate: 1s
ISO 9919

SpO2 (optional, by Nellcor OxiMax™)

Measurement & Alarm Range:
0 - 100%
Resolution: 1%;
Accuracy: ± 2-3% (70-100%, Adult/Pediatric);
± 3-3.5% (70-100%, Neonate)
PR Measurement and Alarm Range: 20 - 300 bpm
Resolution: 1bpm;
Accuracy: 3bpm (depends on probe)
Refresh rate: 1s
ISO 9919

IBP (2 Channels, optional)

Measurement Pressure:
ART, PA, CVP, RAP, LAP, ICP, P1,P2
Measurement range: -50 - 300 mmHg
Resolution: 1 mmHg
Accuracy: ± 2% or ± 1 mmHg, whichever is greater (without probe)
Sensitivity: 5 µV/mmHg; Impedance range: 300-3000 Ω
IEC 60601-2-34

Respironics CO2 (Mainstream and Sidestream, optional)

By Philips Respironics CAPNOSTAT 5® & LoFlo™ Technology
Range: 0~ 150mmHg
Accuracy: ± 2% 0~ 40mmHg,
± 5% 41~70mmHg
± 8% 71~100mmHg
± 10% 101~150 mmHg
AwRR Accuracy: ± 1 rpm
Convenient design for intubated and non-intubated applications
Possible to work at low sample flow rate: 50ml / minute
Detailed specification refer to the user manual of Respironics ISO 21647

Temperature (2 Channels, 1 probe by default)

Measurement/Alarm range:
0~50°C (32-122° F)
Probe type: YSI (B Series) and CF-FI
Resolution: 0.1°C
Accuracy: ± 0.1°C (without probe)
Channel: Dual-channel. Provide T1; T2; Δ T
IEC 12470-4

Thermal Recorder (optional)

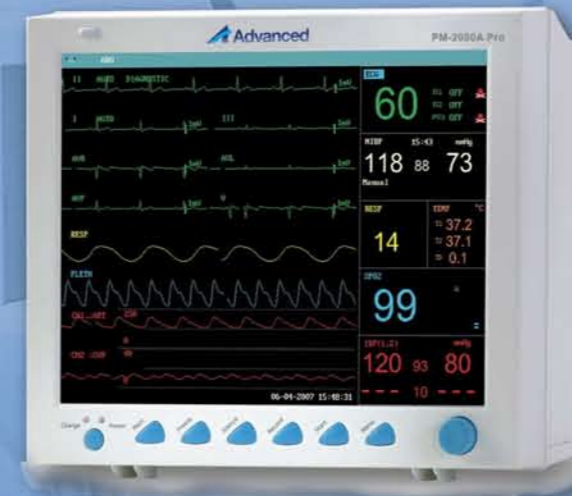
Built-in, direct thermal pixel array recorder
Up to 3 channels printing, 1, 2, 3 channels selectable
Print speed: 25mm/s, 50mm/s

I/O Interface

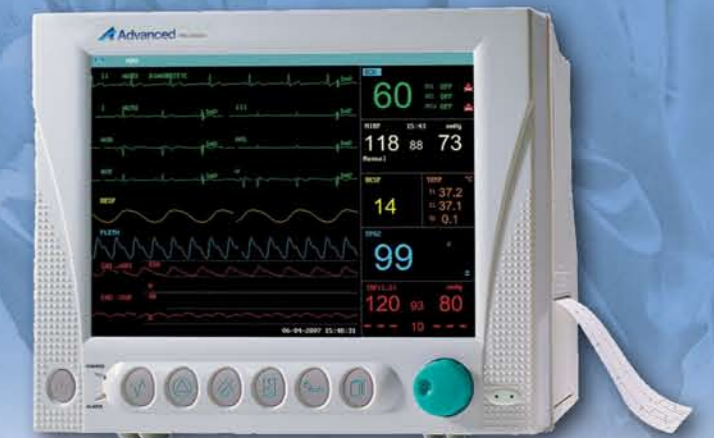
USB Port,
RJ-45 Ethernet Port. IEEE 802.3,
Nurse Call output
WLAN Access Point 802.11g 54Mbps (optional)

patient MONITOR

PM-2000A Pro



PM-2000A+



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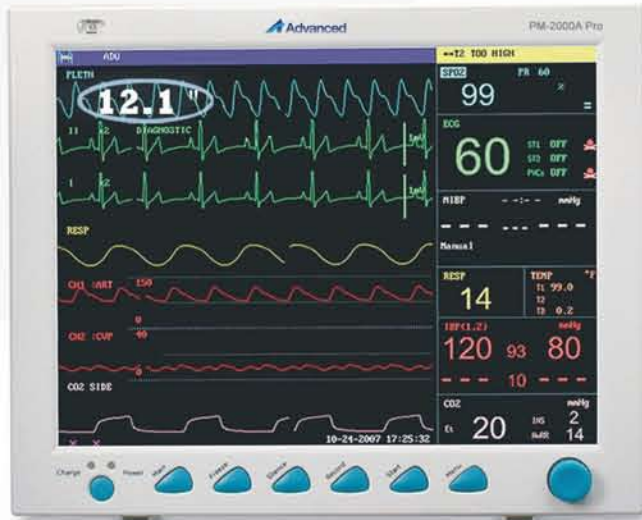
Distributor:

ENG-PM-2000A Pro&PM 2000A+-V1.4-20110329

PM-2000A_PRO/PM-2000A+
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Features and specifications are subject to change without prior notice



PM-2000A Pro & PM2000A+ Patient Monitor Feature

- 12.1" /10.4" color TFT display
- Pacemaker detection, defibrillation and electrosurgical interference protection
- 720s long time full-disclosure waveforms review
- SpO₂ pulse-tone modulation (Pitch Tone)
- Full ECG waveform display
- 12 Leads ECG diagnostic analysis and S-T segment arrhythmia analysis
- Nurse Call function and bi-directional communication with MFM-CMS central station
- Powerful data storage capacity and power off storage
- Complete and flexible mounting solution for transportation and in-patient monitoring
- Data management by PatientCare viewer PC software

Standard parameters: 3/5-lead ECG, SpO₂, RESP, NIBP, 2-TEMP, PR

Optional: Thermal Recorder, WLAN accessory kit, 12-lead ECG, Nellcor-SpO₂, 2-IBP,

Philips Respironics LoFlo™ Side-stream CO₂ and CAPNOSTAT 5™ Main-stream for intubation and non-intubation application.

Global leading technology with unique plug-and-play feature while switching between sidestream and mainstream



LOFLO™ SIDESTREAM CO₂ FOR INTUBATED AND NON-INTUBATED PATIENTS

Low sample velocity of flow which is especially suitable for neonatal patients (50ml/min)
Filter tip (Patient) to obstruct the water vapor from contamination No need for water trap



CAPNOSTAT® 5 mainstream CO₂ for intubated patient

Suitable for any traditional breathing machine
No need to calibrate at a regular basis
Short warm-up time



Storage CAPABILITY

96 hours graphic and tabular trends of all parameters
500 NIBP measurement
60 alarm events
Easy to view long term historical data
FM-2000A+ Pro series support external USB storage. The stored data are able to review by plug the flash disk on monitor/manage on PC.



Mounting Solution

Complete and flexible mounting solution for ICU and operation room
With a variety of highly innovative mounting system.



Network Solution

Wired/Wireless LAN
Nurse call



Recorder

Built-in thermal Printer
Print Speed: 25mm/s 50mm/s

Display Modes



3/5 leads ECG analysis



OxyCRG for Neonatal



Large font display



Trend Screen Mode



EtCO₂ Waveform