

# THE **YM6000** PATIENT MONITOR

Progressive YM6000 Multi-Parameter Patient Monitor provides full parameters.

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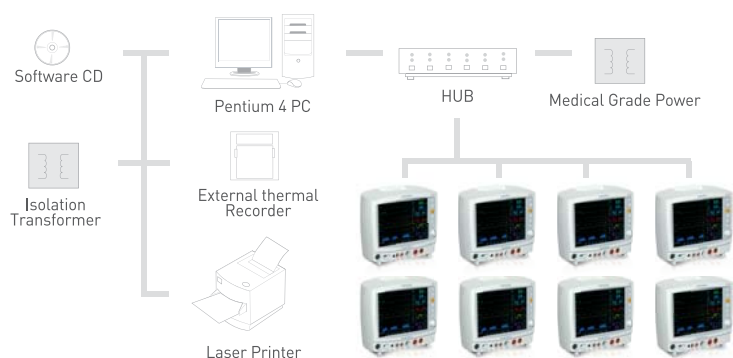


- Available parameters include 3 or 5 lead ECG, Respiration, NIBP, SpO<sub>2</sub>, 2 temperatures, included battery and optional 2IBP, EtCO<sub>2</sub>, and built-in printer.
- High quality 12.1 inch color TFT LCD screen enables you to monitor 6 traces with 10 numerics vital sign clearly even under the most difficult lighting conditions.
- 6 Color coded keys and a trim knob admits clinicians to quickly access monitoring function controls.
- The optimized 2 packs of Ni-MH rechargeable batteries, a wheeled mobile cart and an integrated top handle ensure continuous monitoring under any transport circumstances.
- Connectivity to the central monitoring system enables users to receive alarm signal automatically when the patient's condition turns critical. Stored or real-time vital sign data can be recalled to review and print with any PC printer through the network.

## YM9000 CENTRAL MONITORING SYSTEM

Multiple monitors can be connected to the central monitoring system to raise an alarm signal automatically when the patients turn into critical condition. The stored or real-time vital sign data can be recalled to be displayed or printed with up to three channel wave-forms.

The YM9000 central monitoring system provides the centralized display of real-time vital signs and the values of each parameter. The patient data can be saved on the Hard-Disk that has the memory capacity to restore up to 7 days of data without concern.



### Specification

Standard : Software CD, External Termal recorder, manual, isolation transformer

Optional : HUB, Laser Printer, PC/ monitor, Lan card

pc	up to 16 bed	up to 32 bed	up to 16 bed	up to 32 bed
cpu	Min Intel Pentium4 3GHz	Min Intel Core2 Duo E4400	Intel Core2 Duo E4400	Intel Core2 Duo E5200
memory	Min. 2Gbite memory			
o/s	window xp		window vista	
graphic card memory	Min.128MB Memory			
sound card	0			
speaker	0			
monitor	1 ~ 4 Monitor (exhortation 17inch diagonally)	2 ~ 4 Monitor (exhortation 17inch diagonally)	1 ~ 4 Monitor (exhortation 17inch diagonally)	2 ~ 4 Monitor (exhortation 17inch diagonally)

## YM6000's Various Functions.....

### 1) ETCO<sub>2</sub>



### 2) C-Lock

When C-Lock is turned on in the SpO<sub>2</sub> menu, C-Lock automatically becomes operational any time a valid ECG signal is detected by the monitor. It is not necessary to turn C-Lock off if an ECG signal is not available; the monitor handles this function automatically. If the ECG signal is noisy, or of poor quality, SpO<sub>2</sub> performance may be improved by turning C-Lock off.



### 3) Trends : Stores 1,500 trend data

#### - Tabular Trend

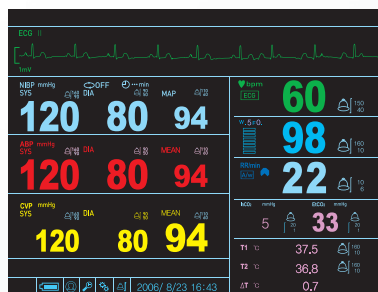


#### - Graphical Trend



### 4) Big Number display

#### - Big number display mode



### 5) Two batteries

- Battery operation for more than 2 hours with 2 NI-MH batteries



### 6) Built-in thermal recorder prints

#### 2-ch waveform



### 7) Wall mount



### 8) Rolling stand



### 9) USB for Software upgrade



### 10) LAN connection for central monitoring system



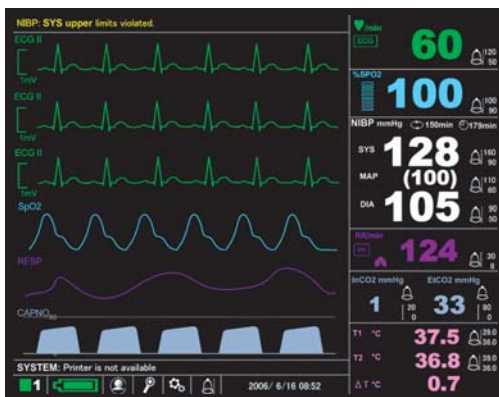
## YM6000 PARAMETERS AND ORDERING INFORMATION (Lan Card : Optional )



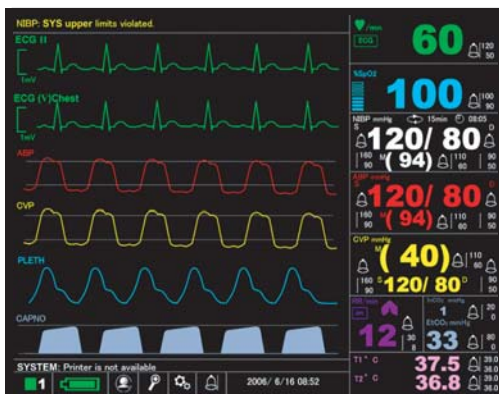
1. Unit Code# PAA21-0  
Standard  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature
2. Unit Code# PAA21-P0  
Standard with Printer  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature
3. Unit Code# PAA21-2  
Standard with USB interface  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature



4. Unit code# PAA21-0B  
Standard with 2IBP  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature, 2IBP
5. Unit Code# PAA21-P0B  
Standard with 2IBP and printer  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature, 2IBP



6. Unit Code# PAA21-0E  
Standard with EtCO2  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature, EtCO2
7. Unit Code# PAA21-P0E  
Standard with EtCO2 and printer  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature, EtCO2



8. Unit Code# PAA21-0BE  
Standard with 2IBP and EtCO2  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature, 2IBP, EtCO2
9. Unit Code# PAA21-POBE  
Standard with 2IBP, EtCO2 and Printer  
Parameters : ECG, Respiration, NIBP, SpO2, Temperature, 2IBP, EtCO2





The YM6000 is a sophisticated monitor using the best technologies.

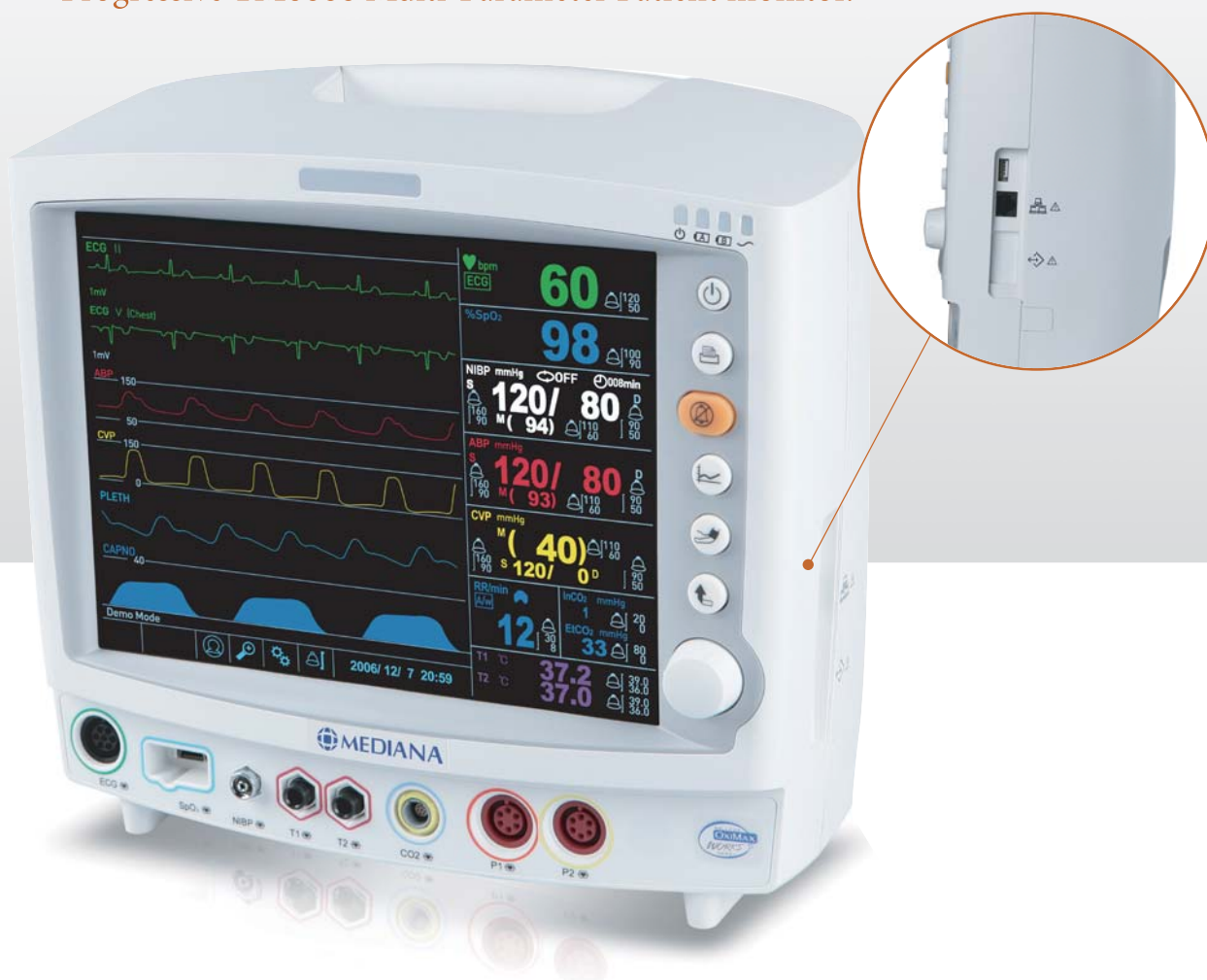
The dynamic linear deflation NIBP module guarantees greater patient comfort, shorter measurement time and improved accuracy for all adult, pediatric and neonate patients.

The new SpO2 module, with sensors, lets you take full advantage of the ongoing advances in pulse oximetry technology.

Up to 24hrs tabular and graphical trends show all parameters to support clinician's decisions whenever necessary.

The central monitoring system displays real time and dual waveforms (Standard model) or 4 analysis waveforms to enable a single clinician to care for 16 to 32 patients effectively.

## " Progressive YM6000 Multi-Parameter Patient monitor. "



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## YM6000 FEATURES AND SPECIFICATIONS

### Display

Screen Size	246.0 mm × 184.5 mm (12.1 inches measured diagonally across the TFT-LCD screen)
Screen Type/Color	Liquid Crystal Display (LCD) Color Cold Cathode Fluorescent Backlit
Resolution	800 × 600 pixel

### Physical Characteristics and Printer

<b>Instrument</b>	
Dimensions	341 × 305 × 172 (mm) (W × H × D) including a handle and excluding options and accessories
Weight	5.5kg excluding optional configurations and accessories

### Printer (Optional)

Type	Thermal
Weight	150 g
Resolution	8 dot/mm
Number of channels	1 to 2 channels
Paper Width	50 mm
Paper Speeds	25.0 mm/s and 50.0 mm/s

### Electrical

<b>Instrument</b>	
Power Requirements	AC Mains 100Vac-240V-50 Hz/60 Hz, 63-110VA

### Battery

Recharge	12 hours with monitor turned on/off
Two batteries typically provide 1 hour of battery life when fully charged with no printing, no external communication, no audible alarm sound and one NIBP measurement per 15 minutes at 25°C.	
Type	Ni-MH

### Environmental Conditions

<b>Operation</b>	
Temperature	10°C to 40°C (50°F to 104°F)
Humidity	15 % RH to 90% RH, non-condensing
Altitude	700hPa~1060hPa

### Transport and Storage (in shipping container)

Temperature	-20°C to 50°C [-4°F to 122°F]
Humidity	15 % RH to 95% RH, non-condensing
Altitude	700hPa~1060hPa

### ECG

Measurement Range	20 BPM to 300 BPM
Accuracy	±3BPM or ±5% whichever is greater
Leads	3 / 5 Lead, detected automatically Lead I, II, III, aVR, aVL, aVF, Chest (V) Lead
Lead Off Detection	Detected and displayed
Voltage range	±0.5 mV to ±5 mV
Signal Width	40 ms to 120 ms [Q to S]
Display Sweep Speeds	6.25mm/sec, 12.5mm/sec and 25mm/sec
Arrhythmia Detection	Yes / 14 types Arrhythmia Detection
S-T segment Analysis	Yes / Measurement & Alarm range : -2.00 ~ +2.00mV
Pace Maker Detection	Yes

### Respiration rate

Technique	Trans-thoracic impedance
Range	0, 3 to 120 breaths/min
Accuracy	±1 breaths/min
Leads	RA to LA
Display Sweep Speeds	6.25 mm/s, 12.5 mm/s, 25.0 mm/s
Lead Off Condition	Detected and displayed

### NIBP

Pulse Rate Range	Adult/Pediatric 30 BPM to 260 BPM / Neonatal 30 BPM to 220 BPM
Pulse Rate Accuracy	±2 BPM or ±2%, whichever is greater
Technique	Oscillometric Measurement
Measurement modes	MANUAL, AUTO and CONT
MANUAL Mode	Single measurement initiated by NIBP, Start/Stop button
AUTO Mode	Automatic BP measurements at intervals of 1, 2, 3, 5, 10, 15, 20, 30, 45, 60, 90, 120 or 180 minutes
CONT Mode	Series of consecutive measurements for 5 minutes NIBP pressure measuring range
Systolic pressure range	Adult/Pediatric 20 mmHg to 260 mmHg Neonatal 20 mmHg to 130 mmHg
Diastolic pressure range	Adult/Pediatric 20 mmHg to 260 mmHg Neonatal 20 mmHg to 130 mmHg
Mean pressure range	Adult/Pediatric 20 mmHg to 260 mmHg Neonatal 20 mmHg to 130 mmHg
Pressure Display Range	0 mmHg to 300 mmHg
Pressure Display Accuracy	Mean error and standard deviation per ANSI/AAMI SP10:2002+A1:2003

### SpO2

<b>%Saturation</b>	
Range	0% to 100%
Perfusion Range	0.03% to 20%
Accuracy	Adults <sup>1</sup> 70% to 100% ±2 digits Neonate 70% to 100% ±2 digits Low Perfusion <sup>2</sup> 70% to 100% ±2 digits
Display Sweep Speeds	12.5 mm/sec, 25.0 mm/sec, and 50.0 mm/sec
C-Lock	

### Pulse Rate

Range	0 and 20 BPM to 250 BPM
Accuracy	Adults and Neonate <sup>1</sup> 20 BPM to 250 BPM ±2 digits Low Perfusion <sup>2</sup> 20 BPM to 250 BPM ±2 digits

- 1 Adult specifications are shown for OXIMAX MAX-A and MAX-N sensors with the YM6000. Neonate specifications are shown for OxiMax MAX-N sensors with the YM6000. Saturation accuracy will vary by sensor type.
- 2 Specification applies to YM6000 performance. Reading accuracy in the presence of low perfusion (detected IR pulse modulation amplitude < 1.5%) was validated using signals supplied by a patient simulator. SpO2 and pulse rate values were varied across the monitoring range including weak signal conditions and compared to the known true saturation and pulse rate of the input signals.

### Capnography

Display	EtCO2, InCO2
Range	0 - 150mmHg
Accuracy	0-40mmHg ±2mmHg of 41-70mmHg ±5% of reading 71-100mmHg ±8% reading 101-150mmHg ±10% reading
Display accuracy	±2mmHg
Response time	Mainstream : less than 60ms
Side stream	less than 3sec
Gas Compensation	User selective at O2 > 60% and N2O > 50%
Warm Up Time	2 minutes maximum
Sound Noise Level	less than 41dB when ambient sound pressure level is 22dB
Sweep Speeds	6.25mm/sec, 12.5 mm/sec and 25.0 mm/sec

### IBP

<b>Pulse Rate</b>	
Range	20 BPM ~ 250 BPM
Accuracy	±1% or ± 1 BPM

### IBP

Parameter Displayed	P1, ABP P2, CVP, PAP, LAP
Pressure Measuring Range	-50 mmHg ~ 300 mmHg
Input Impedance	More than 1 M ohm
Transducer Driving Voltage	DC 5V
Transducer Input Sensitivity	5uV/V/mmHg
Transducer Volume Displacement	0.1mm <sup>3</sup> /100mmHg
Zero Calibration Range	±100mmHg
Zero Calibration Accuracy	Less than ±1mmHg
Frequency Characteristics	dc to 25Hz
Pressure Display Accuracy	Monitor: Less than ±3mmHg
Scale	P1 0-50, 0-100, 0-200, 0-300, AUTO P2 0-20, 0-50, 0-100, 0-200, 0-300, AUTO
Display Sweep Speeds	12.5 mm/sec, 25.0 mm/sec, and 50.0 mm/sec

### Temperature

Probe Type	Thermistor probe
Parameter displayed	TEMP1, TEMP2
Range	15°C to 45°C (59°F to 113°F)
Display Accuracy	±0.1°C (25°C to 45°C) or ±0.2°F (77°F to 113°F) ±0.2°C (15°C to less than 25°C) or ±0.4°F (59°F to less than 77°F)

### Trends

Types	Graphical and Tabular
Memory	saves total 1500 data saves at selected time interval saves alarm condition & error events saves NIBP Measurements
Graphical Format	Total 2 graphs a graph for NIBP, P1/P2, SpO2, T1/T2 parameters a graph for HR/PR, Resp, EtCO2 parameters User-selectable each parameter to be desired
Tabular Format	One table for all parameters
Display	8 lists
Save Time Interval	30sec or 1, 2, 2.5, 5, 10, 15, 20, 30, 60 or 120 minutes
The detail compliances are listed on the operation manual	