

STERNMED[®]



Macs 20

Multi parameter patient monitor



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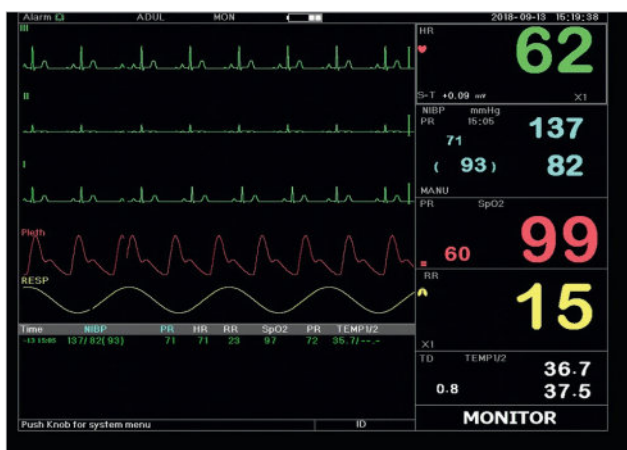
Multi parameter patient monitor

The Macs 20 delivers monitoring capacity and functionalities in an intuitive way, matching the pace and unique needs of adult, pediatric, and neonatal intensive care, anesthesia, peri-operative care, and cardiac care environments.

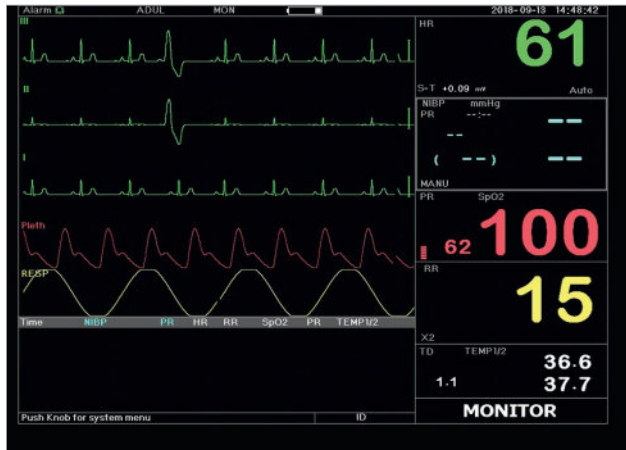


FEATURES

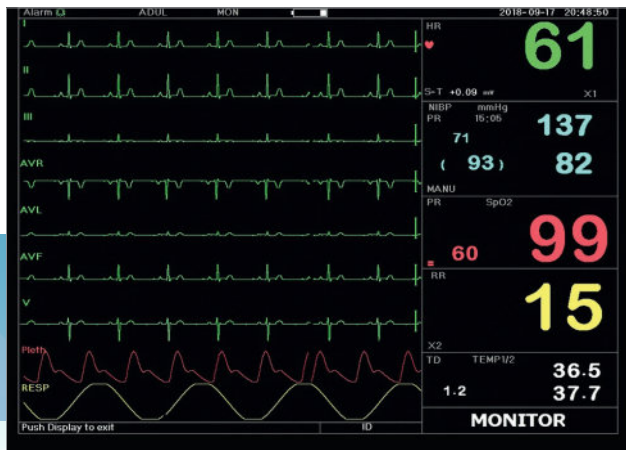
- 12.1" high resolution color TFT display with up to 5 or 9 traces
- 7-channel ECG waveforms display simultaneously
- Easy operation and navigation through rotary knob
- Standard parameters: ECG, RESP, SpO2, NIBP, PR and 2-ch Temp
- 20 arrhythmia waveforms analysis & ST segment analysis (automatic or manual)
- Up to 800 groups of parameter data & 24-hour ECG waveform storage and recall
- Up to 480-hour graphic and tabular trends for all parameters
- 5 traces of real-time waveforms together with 2-hour trend graph can be viewed
- Protection against interference from defibrillator and electrosurgical generator
- Adult/Pediatric/Neonatal measurement modes
- Compact flash back-up protects your patients' data in case of a sudden power outage
- Visual and audible alarms
- Networking capability
- Built-in rechargeable battery



OPTIONS



- Built-In thermal printer
- 1-channel IBP
- 2-channel IBP
- Slide stream CO₂
- Main stream CO₂
- Network capability
- Nellcor compatible SpO₂
- Touch screen
- NIBP Neonate cuff
- SpO₂ Neonate Sensor
- NIBP Child cuff
- SpO₂ Child Sensor
- Rectal Temperature probe
- Monitor Trolley
- Printer
- Respirosonic EtCO₂
- Wall mounting rack



TECHNICAL SPECIFICATIONS

Macs 20 | SternMed Multi parameter patient monitor

ECG MEASUREMENT	
Monitoring mode:	0.5~40Hz (+0.4dB) (-3.0dB)
Frequency response	Diagnosis mode: 0.05~75Hz (+0.4dB) (-3.0dB)
CMRR	≥90dB (diagnostic mode) ≥105dB (monitor mode)
Heart Rate	Range: 15~350bpm Accuracy: ±1% or ±2bpm, whichever is greater
ECG Gain	1/4, 2.5mm/mV@±5%, 1/2, 5mm/mV@±5% 1, 10mm/mV@±5%, 2, 20mm/mV@±5% 4, 40mm/mV@±5%, Auto
ECG Sweeping Speed	6.25mm/s, 12.5mm/s, 25mm/s, 50mm/s±10%
ECG noise level	<30μ Vp-p
ECG input loop current	≤0.1μA
Differential input impedance	≥5MΩ
NIBP	
Measurement Method	Intelligent oscillometric method
Parameters	Systolic, diastolic & mean pressure
Working Modes	Manual, automatic & STAT (5 min.)
Pneumatic Pressure Range	0~300mmHg
Cuff Type	Adult (standard) & child / neonate (optional)
Average Measurement Time	<90sec.
Inflation Time	<10sec. (typical adult cuff)
Deflation Time	<2sec. (typical adult cuff)
Initial cuff inflation pressure	Adult:<180mmHg Pediatric:<120mmHg Neonate:<90mmHg
Monitoring Range (OPL stands for Overpressure Protection Limit)	
Adult (OPL 300mmHg)	Systolic 40~255mmHg Mean 20~215mmHg Diastolic 10~195mmHg
Child (OPL 240mmHg)	Systolic 40~200mmHg Mean 20~165mmHg Diastolic 10~150mmHg
Neonate (OPL 150mmHg)	Systolic 40~135mmHg Mean 20~110mmHg Diastolic 10~95mmHg
NIBP Accuracy	Maximum mean error ±5 mmHg Maximum standard deviation 8 mmHg
RESP	
Measurement	Method: Thoracic impedance Range: 0~120rpm
Accuracy	±2rpm or ±5%, whichever is greater
Alarm Limit Range	0~120bpm
Alarm Tolerance	±2rpm or ±5%
TEMP	
Range	25.0~45.0 °C
Accuracy	±0.2 °C
Responding Time	≤150sec
Unit	°F/ °C
SPO₂	
Transducer	Dual-wavelength LED
Wavelength	Red: 660nm, Infrared: 905nm
Max. Optical Output Power	Less than 2mW Maximum average
SpO ₂ Measuring Range	35~100%
SpO ₂ measuring accuracy	±3% (70~100)(RMS of difference)
Low perfusion capability	0.4~5%
PR	
Pulse rate measuring range	30bpm~240bpm
Accuracy of pulse rate	±2% or ±2bpm, whichever is greater
GENERAL SPECIFICATIONS	
Power supply	100~250VAC, 50/60Hz
Display mode	12 inches TFT color LCD
Alarming mode	Audible & visible alarm
Communication	Ethernet port
Battery	Rechargeable Lead-acid battery
Data recording	Build-in thermal printer (optional)
CLASSIFICATION	
Safety standard	IEC 60601-1
Type of protection against electric shock	Type BF, CF applied parts
Degree of protection against electric shock	Class I equipment
Electro-magnetic compatibility	Group I, Class A



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