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Руководитель Shenzhen Comen Medical Instruments Co., Ltd.

2009г.

Мульти-параметровый монитор пациента STAR8000C

Руководство пользователя



Shenzhen Comen Medical Instruments Co., Ltd.

STAR 8000C

Patient Monitor

www.szcomen.com




COMEN





STAR 8000C

Patient Monitor

User-friendly Interface

Multi interfaces support, including standard display, large-font display, trend coexist display, bed-to-bed view display, OxyCRG dynamic view display and 12-lead ECG display. Color of waveform and parameter is changeable.

Excellent Performance

Individual modules for convenient maintenance and upgrade, including ECG module, SpO2 module, NIBP module, Main board module and Power Supply module, etc.

Super Reliability

The design and production of product strictly comply with the CE standards. The safety, stability and durability of the product are well guaranteed. At least 10 days of aging inspection to maintain product's reliability.

Rich Clinical Information

Excellent software processing techniques, including arrhythmia analysis, pacemaker analysis, oxyCRG, S-T segment analysis, drug dose calculation etc.

Power-off Protection

24 hours of full data, alarm recall and trend graphic saving in case of power failure.

Alarm System

3-levels of audible/visual alarm, breath asphyxia alarm and alarm recall function. It can transfer the change of illness accurately and timely.

Nurse Call

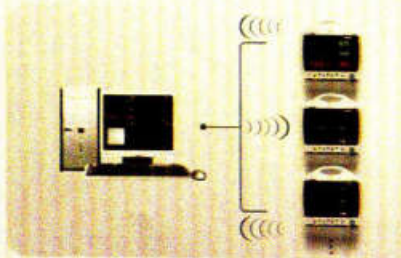
Nurse call connection is available, immediately transfer latest patient information.

Patient Information System

Powerful information system, including patient information input, multi-language selection, and 120 hours trend graphic storage and review. It can meet the requirements of clinic analysis and data management.

Network System

Bi-directional communications with central monitoring system, both wired and wireless solution support.



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Patient Monitor



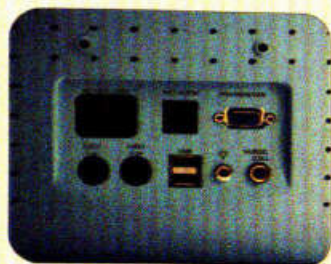
CE 0434





STAR 80

Patient Monitor



Various Input/Output Interfaces



Built-in Thermal Printer



Plug Type Rechargeable Battery

It is a multi-functional, portable patient monitor, which can be widely used in clinic fields, like Surgery, operation room, ICUs, CCUs. etc Suitable for adult, pediatric and neonatal patient

Various Interfaces Various Interfaces for selection: standard interface, big font interface and short trend interface, etc. The color of waveforms and parameters can be changed for different clinical requirements.

Super Reliability CE Marked product. The safety, stability and durability of the products are well guaranteed. The design, raw material control and each manufacture process are strictly controlled. 10 days high/normal temperature aging inspection is required for each unit.

Rich Clinical Information Excellent software processing technique, including arrhythmia analysis, pacemaker analysis, oxyCRG, S-T segment analysis, drug dose calculation etc.

Alarm System 3-level intellectualized light/voice alarm, apnea alarm and alarm recall function. It can transfer the change of illness accurately and timely.

Nurse Call System Nurse call system can alarm with the patient monitor at the same time. It can transfer the abnormal patient situation in time.

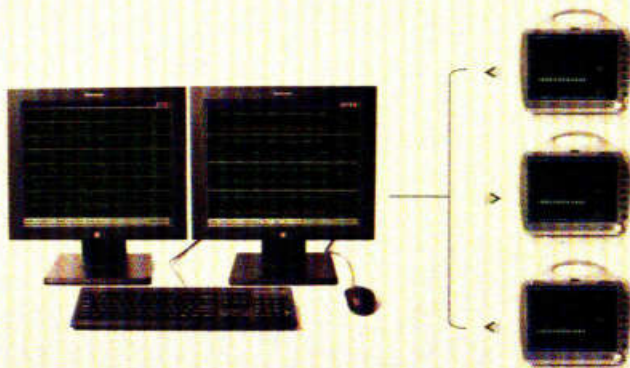
Patient Information System Supports patient information input, multi- language selection, 96 hours' trend graphic storage and review.

Network System IP networking interface, support wire and wireless network. It can set up maximum 128 units' central monitoring system.

Central Monitoring Station



Wall Mount/ Rolling Stand Solution



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Patient Monitor

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Standard Configuration:

- ☐ ECG/HR ☐ SpO2 ☐ NIBP
☐ Temperature ☐ Pulse ☐ Respiration

Optional Configuration:

- ☐ IBP ☐ EtCO2 ☐ Nurse Call System ☐ Nellcor SpO2
☐ Built-in Recorder ☐ Special Accessories for Neonatal and Pediatric Patient

Interfaces

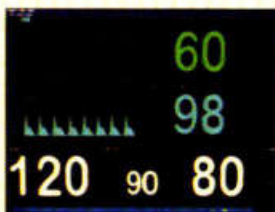


STAR 8000D



OxyCRG

Display of the interactive relation between heart rate, respiration and oxygen parameter. It is convenient for observing the clinic change of neonate.



Big Font Interface

Basic parameters (ECG, SpO2, NIBP) in large font for distance view and long-time observe monitoring.



Trends Graphic Interface:

2-hour trends data with waveforms for all parameters display



View Bed Interface

Support bed-bed view, easy checking for the other monitor's data without central monitoring system



US SpO2 Technology



US EtCO2 Technology

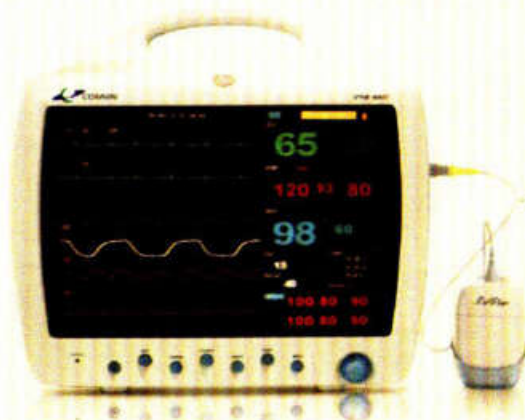
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- 12.1 inch Large-screen color TFT display with maximum 9 waveforms
- 120 hours graphic and tabular trends of all parameters
- SpO₂ pulse-tone modulation (Pitch Tone)
- 1000 group lists of NIBP storage and review
- Optional 12-lead ECG waveforms display and analysis
- Optional Respiroics sidestream and mainstream EtCO₂ measurement for accurate measurement of intubated and non-intubated patients
- Optional Nellcor Oximax/COMEN SpO₂



Reserved EtCO₂ Socket, for easy upgrading of EtCO₂ function



Drug Dose Calculation Interface

It can calculate transfusion speed, drug computation, drug dose. The function provides more help to doctors.



OxyCRG

Display of the interactive relation between heart rate, respiration and oxygen parameter. It is convenient for observing the clinic change of neonate.



12-lead ECG Waveforms Interface

Fully disclosure of the 12-lead ECG waveforms, accurately shows the patient's ECG information. Good for ICU, CCU and operation rooms.



Large Font Interface

Basic parameters (ECG, SpO₂, NIBP, TEMP, RESP) in large font for distance view and long-time monitoring.

Standard Configuration:

- ECG/HR • SpO₂ • NIBP • Respiration • Temperature • Pulse • EtCO₂ Socket

Optional Configuration

- Nellcor SpO₂ • 12-lead ECG • IBP • EtCO₂ • ICG • Anesthesia Gas
- Nurse Call • Built-in Recorder • Central Monitor Station
- Special Accessories for Neonatal and Pediatric Patient



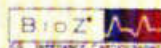
US EtCO₂ Technology



Sweden Multiple Monitoring Technology



US SpO₂ Technology



US ICG Monitoring Technology

STAR 8000C

Patient Monitor

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Safety

ISO 13485:2003 approved, CE marking according to MDD93/42/EEC

Dimension and Weight

Dimension: 320mm × 170mm × 280mm
Weight: 6kg

Operation Environment

Power: AC100-250V, 50/60Hz
Temperature: 0-40°C
Humidity: 15-85%

Patient Range

Adult, Pediatric, Neonate patient

Performance Specifications

Display: 12.1inch color TFT (diagonal)
Resolution: 800x600
Trace: 9 waveforms
Sweep Speed: 12.5mm/s, 25mm/s, 50mm/s
Indicator: Power indicator light
Battery indicator light
Alarm indicator light
QRS beep and alarm sound
Inter face: Parameter cable inter face
AC Power input socket
Network inter face
Battery: lead-Acid /Rechargeable
3 hours for continuous working
Trend time: 1~120 hours
Alarm: User-adjustable High and Low limits
alarm events recallable
audible and visual alarm
Networking: Connected to central monitoring system
Recorder: Built-in, thermal array,
2 traces, paper width: 50mm
Record mode: manual, on alarm,
time - defined
Print speed: 12.5 mm/s, 25mm/s, 50mm/s

ECG

Lead selection: 5-Lead and 3-lead selectable
12-lead (including 3/5-lead) optional
10 leads: RA; LA; RL; LL; V1-V6
or R; L; N; F; C; C1-C6
5 leads: RA; LA; RL; LL; V or R; L; N; F; C,
3 leads: RA; LA; LL or R; L; F
ECG waveform: 2 channels
Gain selection: ×1/4, ×1/2, ×1, ×2, Auto
Sweep speed: 12.5mm/s, 25mm/s, 50mm/s
Heart Rate Range: 20 ~ 250bpm
Accuracy: ±1% or ±2bpm
whichever is greater
Resolution: 1 bpm
S-T segment detection: -2.0mV~+2.0mV
Arrhythmia analysis: Yes
Waveform: Standard 9 ECG waveforms
Optional 12 ECG waveforms
Anti-jamming: line frequency, electrosurgical
interference and defibrillation
Pace detection: Yes
HR alarming time: ≤ 12s
Input impedance: > 5 MΩ

Respiration

Method: Thoracic impedance
RR measurement range: 0-100rpm
Resolution: ±1 rpm
Accuracy: ±1rpm

SpO₂

Measurement range: 0-100%
Resolution: 1%
Accuracy: ±1% (90-100%)
±2% (70-89%)
Pulse Rate range: 0-250 bpm
Pulse Rate Accuracy: ±1bpm

Nellcor SpO₂ (option)

Measurement range: 0-100%
Resolution: 1%
Accuracy: ±2% (adult and low-perfusion)
±3% (neonate)
Alarm range: 0-100%
Pulse rate: Range: 0~254bpm
Resolution: 1bpm
Accuracy: ±3bpm
Alarm range: 0-254bpm

NIBP

Measurement method: Automatic oscillometric
Measurement types: Systolic, Diastolic, Mean
Work mode: Manual / Automatic
Auto measurement time: Adjustable
Measurement unit: mmHg / KPa selectable
Range of systolic pressure:
Adult mode: 40~270mmHg
Pediatric mode: 40~200mmHg
Neonate mode: 25~135 mmHg
Range of diastolic pressure:
Adult mode: 30~200mmHg
Pediatric mode: 20~150 mmHg
Neonate mode: 10~110mmHg
Range of mean pressure:
Adult mode: 30~220mmHg
Pediatric mode 30~160mmHg
Neonate mode: 20~170 mmHg
Accuracy: ±5mmHg
NIBP pressure range: 0~300 mmHg
PR from NIBP: Measurement 40-240bpm
Over-pressure protection: Double safety protection

IBP

Measurement Range: -30mmHg~300mmHg
Channel: 2 channels
Pressure names: ARP, PA, CVP, RAP, LAP, ICP, P1, P2
Accuracy: ±1% or ±1bpm, whichever is greater
Calibration Mode: Zero Calibration

Temperature

Measurement range: 20-45°C
Resolution: 0.1°C
Accuracy: 0.1°C
Measurement unit: °C / °F selectable

EtCO₂- Sidestream / Mainstream (option)

Method: Infrared Absorption Technique
Sample Rate: 50mL/min. ±10 mL/min (sidestream)
CO₂ Measurement Range: 0 to 150 mmHg
CO₂ Resolution: 0.1 mmHg 0 to 69 mmHg
0.25 mmHg 70- 150 mmHg
CO₂ Accuracy: 0-40 mmHg ±2 mmHg
41-70 mmHg ±5% of reading
71-100mmHg ±8% of reading
101-150mmHg ±10% of reading
AwRR: ±1 rpm
Response time: <3 seconds, includes transport time,
risetime
Calculation Method: BTPS (Body Temperature Pressure
Saturated)
Sample Gas Flowrate: 50ml/mi

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STAR 8000A

Patient Monitor

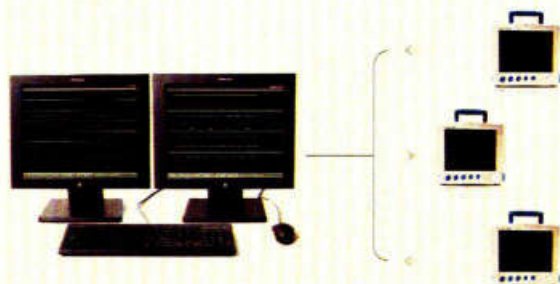
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Features:

- 12.1 Inch Large-screen Color TFT Display
- Light Weight and Portable, Easy Operation Mode
- AC/DC Power Supply, Uninterrupted Monitoring
- Built-in High-capacity Battery, Up to 5 Hours Working Time
- Maximum 96 Hours Storing and Replaying of Trends Graphic
- Maximum 90 Minutes Capturing and Replaying of ECG Waveforms
- Voice/Light Alarms Accurately Transmit Diseases
- IP Network Interface, Compatible with Central Monitoring System



Central Monitoring Station



Wall Mount/Rolling Stand Solution



ECG Waveforms Replay Interface



Trends Graphic Interface



NIBP Listing Interface

Standard Configuration:

- ☐ ECG/HR ☐ SpO2 ☐ NIBP ☐ Temperature ☐ Pulse ☐ Respiration

Optional Configuration:

- ☐ Built-in Printer ☐ Nellcor SpO2 ☐ Special Accessories for Neonatal and Pediatric Patient



US SpO2 Technology

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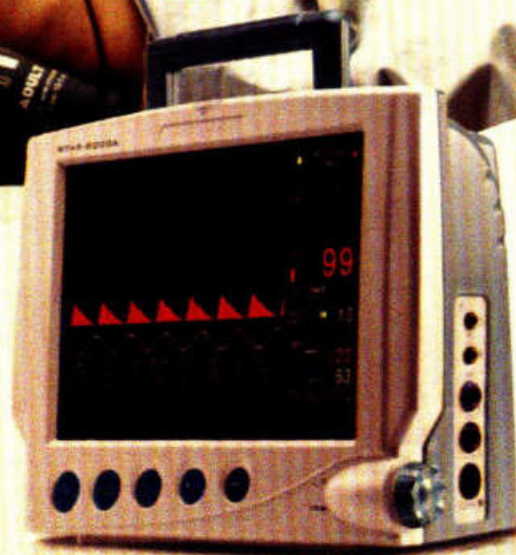
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STAR 8000B

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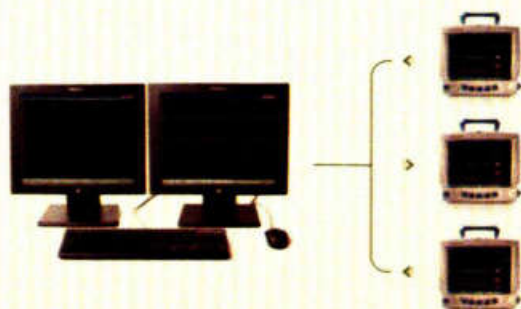
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Features:

12.1 Inch Large-screen Color TFT Display
Light Weight and Portable, Easy Operation Mode
Various Interface Styles, Support Multi-Waveforms View
Support Arrhythmia Analysis, Pacemaker Analysis, S-T Segment Analysis
3-level Intellectualized Light/Voice Alarm, Adjustable Screen Brightness
AC/DC Power Supply, Uninterrupted Monitoring
Built-in High-capacity Battery, Up to 5 Hours Working Time
IP Network Interface, Compatible With Central Monitoring System



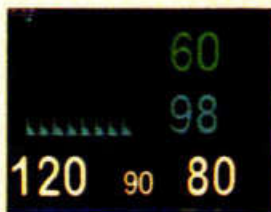
Central Monitoring Station



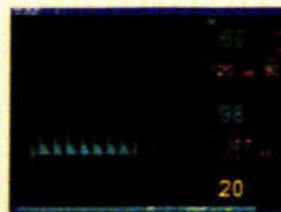
Wall Mount/Rolling Stand Selection



OxyCRG Interface



Big Font Interface



Trend Graphic Interface

Standard Configuration:

☐ ECG/HR ☐ SpO2 ☐ NIBP ☐ Temperature ☐ Pulse ☐ Respiration

Optional Configuration:

☐ Built-in Printer ☐ Nellcor SpO2 ☐ IBP ☐ EtCO2 ☐ Special Accessories for Neonatal and Pediatric Patient



US EtCO2 Technology



US Nellcor SpO2 Technology

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