

Compact monitor with many features previously found only in complete modular systems.



Certified Refurbished

With a compact design and at less than 18 pounds, the Eagle 4000 fits almost any healthcare environment. Plus it has a large 10.4" display that provides superior visibility.

The fully-featured Eagle 4000 is designed for use in many care areas. DRE offers configurations with monitoring features such as simultaneous multi-lead arrhythmia analysis, multi-lead arrhythmia event recall, enhanced multi-lead ST segment measurement capabilities, thermodilution cardiac output determination with cardiac indices calculation, pulmonary and dosage calculations, non-invasive blood pressure, end-tidal carbon dioxide and more. The basic configuration includes multilead ECG, respiration, two temperatures (or cardiac output), two invasive blood pressures and pulse oximetry.



Performance Specifications

Display

Size	10.4-inch diagonal
Type:	
Monochrome	Hi-Bright Electroluminescent (EL)
Color	Thin-Film Transistor (TFT) Liquid Crystal Display (LCD)
Resolution	640 by 480 pixels
Number of traces	6
Number of seconds/trace	6.0 at 25 mm/sec
Sweep speed:	
All waveforms except EtCO2	25 mm/sec (with erase bar)
EtCO2	6.25, 12.5 or 25 mm/sec (with erase bar)
Waveform display options	Full or individual
Information window	Displays non-real-time information without obstructing the display of real-time information
Display organization	Prioritized by parameter

Controls

Standard	Trim Knob control plus 4 hard keys: Silence Alarm, Graph Go/Stop, Zero All, and Display On/Off
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Processing

Main processor	MC68332 32-bit integrated microcontroller (19.968 MHz)
Data acquisition processor	MC68332 32-bit integrated microcontroller (15.72 MHz)
Graphics processor	TMS34010 32-bit graphics system processor (50 MHz)
Program storage	4-MB flash memory
Data storage	2-MB RAM (battery backed-up)

Alarms

Classification	4 levels — Crisis, Warning, Advisory, and Message
Notification	Audible and visual
Setting	Default and individual
Silencing	1 minute, current alarm only
Volume	Default 70%, 70 dB measured at 1 meter

Analog Output

ECG:	
Gain	1 V/mV ±10%
DC offset	±100 mV (max)
Noise	<5 mVp-p (0-300 Hz)
Frequency response	0.05 Hz to 100 Hz +7/-0 Hz
Blood pressure:	
Gain	10 mV/mmHg ±2%
DC offset	±20 mV (max)
Noise	<5 mVp-p (0-300 Hz)
Frequency response	dc to 50 Hz +2/-0 Hz

Respiration

Measurement technique	Impedance variation detection
Range:	
Respiration rate	1 - 200 breaths per minute
Base impedance	100 - 1000 W at 52.6 kHz excitation frequency
Detection sensitivity	0.4 to 10 W variation
Waveform display bandwidth	0.1 to 1.8 Hz (-3 dB)
Alarms	User-selectable upper and lower respiration rate limits, and user-selectable apnea limit

Performance Specifications continued

ECG

Standard leads available	I, II, III, V, aVR, aVL, and aVF
(Optional) 12SL leads available	V2, V3, V4, V5 and V6
Leads analyzed simultaneously	I, II, III, and V (multi-lead mode)
Lead fail	Identifies failed lead
Alarms	User selectable upper and lower heart rate limits
Input specifications:	
Voltage range	±0.5 mV to ±5 mV
Signal width	40 ms to 120 ms (Q to S)
Heart rate range	30 to 300 BPM
Input impedance:	
Common mode	>10 MW at 50/60 Hz
Differential	>2.5 MW from dc to 60 Hz
Output specifications:	
Frequency response:	
Display:	
Diagnostic	0.05 to 120 Hz
Monitoring	0.05 to 40 Hz
Moderate	0.05 to 25 Hz
Maximum	5 to 25 Hz
DDW:	
Diagnostic	0.05 to 120 Hz
Monitoring	0.05 to 40 Hz
Moderate	0.05 to 25 Hz
Maximum	0.05 to 25 Hz
Common mode rejection	90 dB minimum at 50 Hz or 60 Hz
Gain	1000 ±3%
Linearity deviation	±3%
Noise	<30 mV RTI (referred to input)
Pacemaker detection/rejection:	
Input voltage range	±2 mV to ±700 mV
Input pulse width	0.1 ms to 2 ms
Rise time	10 ms to 100 ms
Over/under shoot	2 mV (max)
Baseline drift	<0.5 mV/hour with a ±700-mV, 2-ms pacemaker pulse applied

Temperature (TEMP)

Number of channels	2
Input specifications:	
Probe type	YSI Series 400 or 700 thermistor (determined by input cable)
Temperature range	0° C to 45° C (32° F to 113° F)
Resolution	±0.1° C
Output specifications:	
Parameters displayed	T1, T2
Gain	121.95 ±1%
Linearity	<1% from 30° C to 42° C
dc drift	<1 mV/° C
Error	(independent of source) ±0.1° C for YSI series 400 probes; ±0.3° C for YSI series 700 probes
Noise	<20 mV from dc to 100 Hz
Alarms	User-selectable upper and lower limits for T1, T2

Pulse Oximetry (SpO₂)

Parameters monitored	Arterial oxygen saturation (SpO ₂) and peripheral pulse rate (PPR)
SpO ₂ range	50 - 100%
PPR range	20 - 250 beats per minute (±3 beats per minute)

SpO₂ Accuracy Actual accuracy depends on probe. Please reference manufacturer's specifications.

SpO ₂	± 2% (70 - 100% SpO ₂) ±1 standard deviation
	± 3% (50 - 69% SpO ₂) ±1 standard deviation
	PPR ± 3 beats per minute
Alarms	User-selectable upper and lower limits for SpO ₂ and PPR

Cardiac Output (CO)

Availability	Included in 7020, 7025, and 7030 software packages. Not available in 7015 software package.
Input specifications:	
Probe type	In-line or bath probe
Catheter size	5F, 6F, 7F, 7.5F, and 8F
Injectate volume	3, 5, or 10 cc
Output specifications:	
Parameters displayed	Cardiac output, blood temperature, injectate temperature, trial number
Range:	
Cardiac output	0.2 - 15 liters per minute
Blood temperature	30 - 42° C
Injectate temperature	0 - 30° C
Noise	<20 mV from dc to 100 Hz
Accuracy:	
Cardiac output	±5% (liters of blood/min)
Blood temperature	±0.2° C
Injectate temperature	±0.3° C
Frequency response	dc to 15 Hz ±2 Hz
Noise	<20 mV from dc to 100 Hz

Invasive Blood Pressure (BP)

Number of channels	2
Transducer sites	Arterial (ART), femoral artery (FEM), pulmonary artery (PA), central venous (CVP), right atrial (RA), left atrial (LA), intracranial (ICP), and special (SP)
Transducer requirements:	
Excitation voltage	±2.5 Vdc ±0.1%
Transducer output	50 mV/V/cm Hg
Input specifications:	
Range	-25 mmHg to 300 mmHg
Offset	±150 mmHg
Input impedance:	
Common mode	>100 kW at 50/60 Hz
Differential	>100 kW from dc to 60 Hz
Output specifications:	
Gain	976 ±1%
Frequency response	dc to 50 Hz (+0/-3 dB)
Gain stability	< ±0.1%/°C, and < ±0.1% over any 24 hour period
Zero balance range	±150 mmHg
Zero balance accuracy	±1 mmHg
Zero balance drift	±1 mmHg over 24 hours
Common mode rejection	>60 dB at 60 Hz
Noise	<5 mVp-p from dc to 30 Hz
Accuracy	±2% or ±1 mmHg, whichever is greater (exclusive of transducer)
Alarms	User-selectable upper and lower limits for systolic, diastolic, and mean pressures

Also available with NIBP, and EtCO₂