

# GE Dash 2000

## Product Specifications

### Display

Size: 5.8-inch (diagonal)

Type: Monochrome LCD; optional color LCD

Resolution: 320 by 240 pixels

Number of traces: 3

Number of seconds/trace: 3.8 at 25 mm/sec

Sweep speed: 25 mm/sec (with erase bar)

Information window: Displays non-real-time information without obstructing the display of real-time information

Display organization: Prioritized by parameter

### Controls

Trim Knob control

Five hard keys: Silence Alarm, Graph Go/Stop, NBP Go/Stop, Function, and Power On/Off

### Alarms

Categories: Patient status and system status

Priority: 4 levels – Crisis, Warning, Advisory, Message

Notification: Audible and visual

Setting: Default and individual

Silencing: 1 minute, current alarm only

Pause: 5 minutes in Adult ICU mode, 3 minutes in Neonatal ICU mode, and 5 minute, 15 minute, or permanent pause in OR mode

Volume: Default 70%, 70 dB measured at 1 meter

## **ECG**

Standard leads available: I, II, III, V, aVR, aVL, and aVF

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:  $\pm 0.5$  mV to  $\pm 5$  mV with size 2x or 4x below 1 mV and with QRS width Adult ICU 70 to 120 ms Neonatal ICU 40 to 80 ms

Signal width: 40 ms to 120 ms (Q to S)

Heart rate range: 30 to 300 bpm

Input impedance:

Common mode:  $> 10 M^*$  at 50/60 Hz

Differential:  $> 2.5 M^*$  from dc to 60 Hz

Common mode rejection: 90 dB minimum at 50 or 60 Hz

## **Output specifications**

**Frequency response:**

**Display:**

Diagnostic: 0.05 to 40 Hz

Monitoring: 0.05 to 40 Hz

Moderate: 0.05 to 25 Hz

Maximum: 5 to 25 Hz

## **Paper:**

Recorder:

Diagnostic: 0.05 to 100 Hz

Monitoring: 0.05 to 40 Hz

Moderate: 0.05 to 25 Hz

Maximum: 0.05 to 25 Hz

Noise: <30  $\mu$ V RTI (referred to input)

## **Pacemaker detection/rejection**

Input voltage range:  $\pm 2$  mV to  $\pm 700$  mV

Input pulse width: 0.1 to to 2 ms

Rise time: 10 ms to 100  $\mu$ s

Over/under shoot: 2 mV (max.) with Diagnostic or Monitor filter setting and size 1x or 0.5x

Baseline drift: <0.5 mV/hour with a  $\pm 700$ -mV, 2-ms pacemaker pulse applied

## **Respiration**

Measurement technique: Impedance variation detection

Range:

Respiration rate: 0-200 breaths per minute

Base impedance: 100-1000 \* at 52.6 kHz

Detection sensitivity: 0.4 to 10 \* variation

Waveform display bandwidth: 0.1 to 1.8 Hz (-3dB)

Alarms: User-selectable upper and lower respiration rate limits and apnea limit

## **Temperature**

Number of channels: 1

## **Input specifications**

Probe type: YSI Series 400

Temperature range: 0°C to 45°C (32°F to 113°F)

Resolution:  $\pm 0.1^{\circ}\text{C}$

## **Output specifications**

Parameters displayed: TP

Accuracy: (independent of source)  $\pm 0.1^{\circ}\text{C}$

Alarms: User-selectable upper and lower limits

## **Noninvasive Blood Pressure**

Measurement technique: Oscillometric

Displayed parameters: Systolic, diastolic, and mean pressures, pulse rate, time of last measurement

Measurement modes: Manual, auto, and stat in Adult ICU and OR modes; manual and auto in neonatal mode Heart rate detection: 30 to 300 beats per minute

Total cycle time: 20 to 40 seconds typical (dependent on heart rate and motion artifact) Automatic cycle times: 0 to 24 hours

Auto zero: Zero pressure reference prior to each cuff inflation

Tubing length: 12 feet adult, 8 feet neonatal

Automatic cuff deflation: Cycle time exceeding 3 minutes (90 seconds neonatal), power off, or cuff pressure exceeds 300 mmHg (+10%) adult, 150 mmHg (+10%) neonatal

## **Cuff sizes:**

Disposable: Large adult, adult, small adult, pediatric, small pediatric, and infant

Reusable: Thigh, large adult, adult, child, and infant

Alarms: User-selectable upper and lower limits for systolic, diastolic, and mean pressures

## **Pulse Oximetry**

Parameters monitored: Arterial oxygen saturation (SpO<sub>2</sub>) and peripheral pulse rate (PPR)

SpO<sub>2</sub> range: 50 – 100%

PPR range: 20 – 250 beats per minute ( $\pm 1\frac{1}{2}$  3 beats per minute)

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

SpO<sub>2</sub>:  $\pm 2\%$  (70 – 100% SpO<sub>2</sub>)  $\pm 1$  standard deviation  $\pm 3\%$  (50 – 69% SpO<sub>2</sub>)  $\pm 1$  standard deviation

PPR:  $\pm 3$  beats per minute

Alarms: User-selectable upper and lower limits for SpO<sub>2</sub> and PPR

## **Paper Recorder (Option)**

Method: Thermal dot array

Horizontal resolution: 480 dots/in @ 25 mm/sec

Vertical resolution: 200 dots/in

Number of waveform channels: three

Paper width: 50 mm (1.97 in)

Paper length: 25 m (95 ft)

Paper speed: 0.1, 0.5, 1, 5, 10, 12.5, 25, and 50 mm/sec

## **Analog Output ECG**

Gain: 1 V/mV  $\pm 10\%$

DC offset:  $\pm 100$  mV (max)

Noise:  $< 5$  mV peak to peak dc to 300 Hz

Frequency response: 0.05 Hz to 100 Hz -0/+7 Hz

### **Internal Battery**

Battery type: Nickel-cadmium (Ni-Cd)

Charge time: 1 to 4 hrs

Run time: 3 to 4 hrs

### **Environmental Specifications**

Power requirements: 90-264 VAC 50/60 Hz 500 mA

Power consumption: 40 W (fully loaded)

Cooling: convection

Heat dissipation: 135 Btu/hr (max)

### **Operating Conditions**

Ambient temperature: 10 to 40°C (50 to 104°F)

Relative humidity: 5 – 95% @ 40°C

### **Storage Conditions**

(do not exceed):

Temperature: -25 to 70°C (-13 to 156°F)

Relative humidity: 15 to 95%

### **Physical Specifications**

Height: 22 cm (8.5 in)

Depth: 20 cm (8 in)

Width: 27 cm (10.5 in)

Weight: 5.5 kg (12 lb) with all options