# 750 Multi-Parameter Monitor





Multi-parameter monitor is compact, portable and ideal for:

- procedural sedation
- medical surgical floor
- transport, in-hospital applications
- pre-hospital & emergency care
- outpatient care
- critical care areas

## Small, lightweight and technologically advanced

At 2kg (4.4 lbs), the CASMED 750 is one of the world's smallest and lightest multi-parameter monitors.

#### For all Patients

• Adult

- Pediatric
- Neonatal

#### Display

- Up to three waveforms
- Grouped numerics
- Trend and alarm history

#### Featured technologies

- Oximetry choices include: Masimo SET<sup>®</sup>
  - Nellcor<sup>®</sup> OxiMax<sup>®</sup>
- MAXNIBP®
- Oridion Microstream<sup>®</sup> EtCO<sub>2</sub>



## **Patient Monitors** 750 Multi-Parameter Monitor



**Operating Environment** 

(32° F to 122° F)

(-4° F to 140° F)

(80 to 105 kPa)

L250V fuse rating

DC (Optional): 12 VDC

Charge Time: 3-5 hrs

15 minute intervals

ANSI/AAMI SP-10: 2002

60601-2-49, EN 864, EN865

Standards

Power

Operating Temperature: 0° C to 50° C

Storage Temperature: -20° C to 60° C

Humidity: 15 to 95% RH, non-condensing

Barometric Pressure: 600 to 790 mmHg

Source: External AC power or internal battery

Battery: NiMH battery pack (user removable)

**Chassis Leakage Current:** 100 µA (maximum)

IEC 60601-1, EN 60601-1-2, IEC 60601-2-30, IEC

CE Marking according to Directive 93/42/EEC

UL Listed – UL 60601-1, CAN/CSA C22.2 No. 601.1

Operating Time: 3 hrs with NIBP at

AC Power: 100-240 VAC, 50/60 Hz, 0.5A; T1.25A

Altitude: -500 to +10,000 ft (-152.4 m to +3048 m)

- Fully configured monitor with SpO<sub>2</sub>, Respiration Rate (EtCO,), NIBP and EtCO,, weighing only 2 kg (4.4 lbs)
- Pulse oximetry choices including Masimo SET® and Nellcor® OxiMax®
- MAXNIBP® (Motion Artifact Extraction) for fast, accurate and reliable blood pressure measurements
- Oridion Microstream® EtCO, option for intubated and non-intubated patients
- Wireless (infrared) printer option
- Monitoring for neonates to adults
- User removable NiMH battery pack, internal power supply and DC power option

Capnography provides the clinician with:

- · An early indication of apnea events
- An early indication of obstructed airway
- An indication of possible over-sedation resulting in hypoventilation
- An accurate respiration rate
- An indication of ventilation adequacy for nonintubated patients
- An early indication of respiratory depression
  - Allows staff to alter PCA treatment plans to optimize breathing status
- Monitoring support needed to wean patients off mechanical ventilation
- Verification of ET tube status
- An indication of the effectiveness of CPR chest compressions
- Ventilatory status of COPD and Asthma patients
- Monitoring support for titration of CO2
- Ventilatory status of patients who are experiencing seizures
- Identification of patients with diabetic ketoacidosis

#### **750C Configuration**



EtCO<sub>2</sub> and SpO<sub>2</sub> 750C-2 **750C-3** EtCO<sup>2</sup><sub>2</sub>, SpO<sub>2</sub> and MAXNIBP

**750S Configuration** 750S SpO, and NIBP

#### CAS Medical Systems, Inc.

44 East Industrial Road Branford, CT 06405 USA Telephone: 203 488 6056 Toll Free: 800 227 4414 www.casmed.com

#### NIBP

Technique: Oscillometric (MAXNIBP® Technology) Patient Range: Adult - Neonate Systolic: Adult 30-255 mmHg, Neonate 30-135 mmHg Diastolic: Adult 15-220 mmHg, Neonate 15-110 mmHg MAP: Adult 20-235 mmHg, Neonate 20-125 mmHg Pulse Rate Range: Adult 30-240 BPM, Neonate 40-240 BPM Accuracy: ± 5 mmHa Standard deviation no greater than 8 mmHg (meets AAMI 2002 SP-10 requirements)

SpO<sub>2</sub>

Masimo SET® Range: 0-100% Accuracy: Adult 70-100%, ± 2 digits (1 S.D.) Neonate 70-100%, ± 3 digits (1 S.D.) Pulse Rate Range: 25-240 BPM Accuracy: ± 3 BPM

#### Nellcor<sup>®</sup> OxiMax<sup>®</sup>

Range: 1-100% Accuracy: Adult 70-100%, ± 2 digits (1 S.D.), Neonate 70-100%,  $\pm$  3 digits (1 S.D.) Pulse Rate Range: 20-240 BPM Accuracy: ± 3 digits

**EtCO** 

#### **Oridion Microstream®**

Method: Sidestream Capnography Units: mmHg, % or kPa Sample Rate: 50 ml/min ± 7.5 ml/min Range: 0 to 99 mmHg (0-13.2 kPa and 0-13.0 vol% at sea level) Warm-Up Time: 30 seconds typical, reaches steadystate accuracy 20 minutes after power up Accuracy: 0-38 mmHg ± 2 mmHg 39-99 mmHg  $\pm$  5% of reading Resolution: 1 mmHq, 0.1 % or 0.1 kPa Respiration Rate: 0-150 BrPM

**Patient Alarms** 

#### Adjustable Alarms (High & Low): %SpO<sub>2</sub>, Pulse Rate, EtCO<sub>2</sub>, Respiration Rate, Systolic, Diastolic, No Respiration, FiCO Trend History: 8 hours or 480 Events Alarm History: 25 most recent alarms Indicators: Audible, Yellow Equipment Alarm LED's, Red Patient Alarm LED's, and Message Window

#### **Operating Modes**

Patient Modes: Neonate or Adult NIBP Modes: Manual, STAT or Automatic (at preset intervals) Other Modes: Sleep Mode

#### Display

Numerics: PR, %SpO<sub>3</sub>, NIBP (Systolic, Diastolic and MAP or PR), EtCO, (mmHg, % or kPa), RR

#### **Physical Dimensions & Weight**

(Fully configured unit with battery) H x W x D: 17.0 cm x 21.5 cm x 10.2 cm (6.75 in x 8.5 in x 4.0 in) Weight: 2.0 kgs (4.4 lbs)



Certificate Number FM 72259

Dealer Imprint

Vital Care Products, Inc. 800-837-5511 x200 sales@vitalcareproducts.com

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#### STANDARDS FOR BASIC ANESTHETIC MONITORING

### Committee of Origin: Standards and Practice Parameters (Approved by the ASA House of Delegates on October 21, 1986, and last amended on October 20, 2010 with an effective date of July 1, 2011)

These standards apply to all anesthesia care although, in emergency circumstances, appropriate life support measures take precedence. These standards may be exceeded at any time based on the judgment of the responsible anesthesiologist. They are intended to encourage quality patient care, but observing them cannot guarantee any specific patient outcome. They are subject to revision from time to time, as warranted by the evolution of technology and practice. They apply to all general anesthetics, regional anesthetics and monitored anesthesia care. This set of standards addresses only the issue of basic anesthetic monitoring, which is one component of anesthesia care. In certain rare or unusual circumstances, 1) some of these methods of monitoring may be clinically impractical, and 2) appropriate use of the described monitoring methods may fail to detect untoward clinical developments. Brief interruptions of continual<sup>†</sup> monitoring may be unavoidable. These standards are not intended for application to the care of the obstetrical patient in labor or in the conduct of pain management.

#### 1. STANDARD I

Qualified anesthesia personnel shall be present in the room throughout the conduct of all general anesthetics, regional anesthetics and monitored anesthesia care.

#### 1.1 Objective -

Because of the rapid changes in patient status during anesthesia, qualified anesthesia personnel shall be continuously present to monitor the patient and provide anesthesia care. In the event there is a direct known hazard, e.g., radiation, to the anesthesia personnel which might require intermittent remote observation of the patient, some provision for monitoring the patient must be made. In the event that an emergency requires the temporary absence of the person primarily responsible for the anesthetic, the best judgment of the anesthesiologist will be exercised in comparing the emergency with the anesthetized patient's condition and in the selection of the person left responsible for the anesthetic during the temporary absence.

#### 2. STANDARD II

During all anesthetics, the patient's oxygenation, ventilation, circulation and temperature shall be continually evaluated.

#### 2.1 Oxygenation -

#### 2.1.1 Objective -

To ensure adequate oxygen concentration in the inspired gas and the blood during all anesthetics.

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#### 2.2 Methods -

- 2.2.1 Inspired gas: During every administration of general anesthesia using an anesthesia machine, the concentration of oxygen in the patient breathing system shall be measured by an oxygen analyzer with a low oxygen concentration limit alarm in use.\*
- 2.2.2 Blood oxygenation: During all anesthetics, a quantitative method of assessing oxygenation such as pulse oximetry shall be employed.\* When the pulse oximeter is utilized, the variable pitch pulse tone and the low threshold alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.\* Adequate illumination and exposure of the patient are necessary to assess color.\*

#### 3. VENTILATION

#### 3.1 Objective -

To ensure adequate ventilation of the patient during all anesthetics.

#### 3.2 Methods -

- 3.2.1 Every patient receiving general anesthesia shall have the adequacy of ventilation continually evaluated. Qualitative clinical signs such as chest excursion, observation of the reservoir breathing bag and auscultation of breath sounds are useful. Continual monitoring for the presence of expired carbon dioxide shall be performed unless invalidated by the nature of the patient, procedure or equipment. Quantitative monitoring of the volume of expired gas is strongly encouraged.\*
- 3.2.2 When an endotracheal tube or laryngeal mask is inserted, its correct positioning must be verified by clinical assessment and by identification of carbon dioxide in the expired gas. Continual end-tidal carbon dioxide analysis, in use from the time of endotracheal tube/laryngeal mask placement, until extubation/removal or initiating transfer to a postoperative care location, shall be performed using a quantitative method such as capnography, capnometry or mass spectroscopy.\* When capnography or capnometry is utilized, the end tidal CO2 alarm shall be audible to the anesthesiologist or the anesthesia care team personnel.\*
- 3.2.3 When ventilation is controlled by a mechanical ventilator, there shall be in continuous use a device that is capable of detecting disconnection of components of the breathing system. The device must give an audible signal when its alarm threshold is exceeded.
- 3.2.4 During regional anesthesia (with no sedation) or local anesthesia (with no sedation), the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs. During moderate or deep sedation the adequacy of ventilation shall be evaluated by continual observation of qualitative clinical signs and monitoring for the presence of exhaled carbon dioxide unless precluded or invalidated by the nature of the patient, procedure, or equipment.

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#### 4. CIRCULATION

#### 4.1 Objective -

To ensure the adequacy of the patient's circulatory function during all anesthetics.

#### 4.2 Methods -

- 4.2.1 Every patient receiving anesthesia shall have the electrocardiogram continuously displayed from the beginning of anesthesia until preparing to leave the anesthetizing location.\*
- 4.2.2 Every patient receiving anesthesia shall have arterial blood pressure and heart rate determined and evaluated at least every five minutes.\*
- 4.2.3 Every patient receiving general anesthesia shall have, in addition to the above, circulatory function continually evaluated by at least one of the following: palpation of a pulse, auscultation of heart sounds, monitoring of a tracing of intraarterial pressure, ultrasound peripheral pulse monitoring, or pulse plethysmography or oximetry.

#### 5. BODY TEMPERATURE

#### 5.1 Objective –

To aid in the maintenance of appropriate body temperature during all anesthetics.

#### 5.2 Methods –

Every patient receiving anesthesia shall have temperature monitored when clinically significant changes in body temperature are intended, anticipated or suspected.

\* Note that "continual" is defined as "repeated regularly and frequently in steady rapid succession" whereas "continuous" means "prolonged without any interruption at any time."

\* Under extenuating circumstances, the responsible anesthesiologist may waive the requirements marked with an asterisk (\*); it is recommended that when this is done, it should be so stated (including the reasons) in a note in the patient's medical record.