

CLEO™

THE COST EFFECTIVE CAPNOGRAPH



INFINIUM 

CLEO™

PORTABLE

With Battery Backup

Bright Color 5 Inch

TOUCHSCREEN

UPGRADABLE

Blood Pressure and Pulse Oximetry Additions



The **Cleo™** is a new cost effective approach to capnography measurement. The **Cleo™** can be configured to measure any combination of: capnography (EtCO₂), non-invasive blood pressure, and SpO₂.

Weighing in at less than 3 LBS the portable **Cleo™** is well suited for any patient care area by offering a multitude of vital sign combinations. The **Cleo™** can be used as a basic Capnograph for minor procedures or can offer more by adding blood pressure and pulse oximetry measurement. The **Cleo™** is well suited for both bed side and procedure room use.

The **Cleo™** simplifies clinician use by incorporating a touch screen with a simple user interface making the **Cleo™** intuitive for any user. A long-life lithium Ion battery is standard and many mobile mounting solutions' are available for the **Cleo™**.

MULTIPLE CARE AREAS

- Minor Procedure
- Dental Sedation
- Sleep Labs
- Pain Management
- Respiratory Care

MULTIPLE CONFIGURATIONS

- Capnography
- Capnography+SpO₂
- Capnography+SpO₂+BP
- Rolling Stand Mounted
- Wall or Bedside Mounted

PROVEN TECHNOLOGY

- Infinium® SpO₂
- SunTech® Advantage BP
- Infinium Sidestream EtCO₂

The Multi-Care Area

CAPNOGRAPH



The **Cleo™** capnograph provides a cutting edge low flow End-tidal CO₂ measuring system. The **Cleo™** uses a 50/ml per minute sidestream method to deliver the most accurate EtCO₂ readings. Non-proprietary sample lines allows the **Cleo™** to be the industry's lowest cost per patient Capnograph. The **Cleo™** can be used on both intubated and non-intubated patients. The **Cleo™** sample line connection system uses filter cells to eliminate the potential of cross contamination.

The **Cleo™** capnograph is beneficial in:



PAIN MANAGEMENT

Suppressed respiratory function can be caused by patient-controlled analgesia (PCA). Opiates may suppress the respiration of patient receiving pain management. The use of Capnography to measure End-Tidal CO₂ (EtCO₂) can quickly alert clinicians to the symptoms of a patient's respiratory depression which can lead to avoidance of coma or cardiac arrest.



MINOR PROCEDURE SEDATION

The American Society of Anesthesiologists (ASA) States, "During moderate to 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." End-Tidal CO₂ (EtCO₂) is the earliest indicator of respiratory complications during medical procedures.



SEDATION DENTISTRY

The American Association of Oral and Maxillofacial Surgeons (AAOMS) states, "During moderate or deep sedation and general anesthesia, the adequacy of ventilation shall be evaluated by the continual observation or qualitative clinical signs and monitoring of exhaled carbon dioxide."

PHYSICAL DIMENSIONS & WEIGHT

Base Unit: 8 x 4.5 x 4 (HxWxD inches)
Weight: 2.5 LBS

PERFORMANCE SPECIFICATIONS

Display: 5.0 inch (Diagonal) color TFT
Resolution: 800 x 3(RGB) x 480
Trace: 2 waveforms
Waveforms: PLETH, ETCO2
Indicator: Alarm Indicator
Power indicator
Pulse beep and alarm sound
Trend time: From 1 to 72 hours

NIBP

Measuring Technology: Automatic oscillating measurement
Cuff Inflating: <30s (0 ~ 300 mmHg, standard adult cuff)
Measuring Period: AVE<40s
Mode: Manual, Auto, STAT
Measuring Interval in AUTO Mode: 2 min ~ 4 hrs
Pulse Rate Range: 30 bpm ~ 250 bpm
Measuring Range: BP Mode
SYS: 40 ~ 250 (mmHg)
DIA: 15 ~ 200 (mmHg)
Resolution: 1mmHg
Pressure Accuracy: Maximum Mean error: ±5mmHg
Maximum Standard deviation: 8mmHg
Overpressure Protection: Adult Mode: 280(mmHg)
Alarm Limit: SYS: 50 ~ 240 mmHg
DIA: 15 ~ 180 mmHg
Standards: Meets performance standards of ANSI/AAMI SP10:2002

SpO2

ASpO2: Anti-motion SpO2
SpO2% Range: 0 ~ 100%
SpO2 Accuracy: ±2% (70 ~ 100%, non-motion)
±3% (70 ~ 100%, motion)
Pulse Rate Range: 30-250 bpm
Pulse Rate Accuracy: ±2 bpm(non-motion),
±3 bpm (motion)
Alarm Upper-lower Limit: Upper limit 70 ~ 100%,
Lower limit 70 ~ 100%
SpO2 Probe: Red light LED wavelength:
660nm±5nm
Infrared light LED wavelength:
940nm±10nm
Standards: Meets performance standards of EN ISO 9919:2005

EtCO2

Mode of Sampling: Sidestream or Mainstream
Principle of Operation: Non-dispersive infrared (NDIR) single beam optics, dual wavelength, no moving parts.
CO2 measurement Range: 0 to 150 mmHg
(0 to 19.7%, 0 to 20 kPa)

CO2 Calculation Method: BTPS
(Body Temperature Pressure Saturated)
CO2 Resolution: 0.1mmHg (0-69mmHg),
0.25mmHg (70-150mmHg)
CO2 Accuracy: 0 ~ 40 mmHg ± 2 mmHg
41 ~ 70 mmHg ± 5% of reading
71 ~ 100 mmHg ± 8% of reading
101 ~ 150 mmHg ± 10% of reading
Above 80 breath per minute ± 12% of reading
Sampling rate: 100Hz
Respiration Rate: 2 ~ 150 bpm
Respiration Rate accuracy: ±1 breath
Response Time: <3 seconds -
includes transport time and rise time
Inspired CO2 measurement Range: 3 ~ 50 mmHg
Standards: Meets performance standards of ISO/FDIS 21647:2004 (E), ASTM F1456-01, IEC/CDV 60601-2-55

POWER

Source: External AC power or internal battery
AC Power: 100 ~ 240VAC, 50/60Hz, 150VA
Battery: Built-in and lithium Ion rechargeable, 12.6V/5Ah
Charge Time: 8 hours
Operating Time: 3 hours

ENVIRONMENTAL SPECIFICATIONS

Temperature: Operating: 5 ~ 40 °C
Storage: -20 ~ 60 °C
Humidity Range: Operating: ≤80 %
Storage: ≤80 %

FUSE

3.15A/250V

LCD SPECIFICATIONS

Display Type: TFT color LCD
Size (diagonal): 5.0 inch
Active Area: 152.4 (W) x 91.44 (H) mm
Color arrangement: RGB-stripe
Dot pitch: 0.0635(W) x 0.1905(H) mm
Display Mode: Normally white, Transmissive
Interface: Digital (TTL)
Surface Treatment: Anti-Glare

TOUCHSCREEN SPECIFICATIONS

Type: Four-Wire Analog Resistive Touch Panel
Input Mode: Stylus Pen or Finger
Connector: FPC
Insulation resistance: 25MΩ
Voltage: 7VDC
Chattering: 10ms
Transparency: 80%
Surface hardness: 3H
Durability-surface scratching: Write 100,000
Active force: 80gf
Knock Test: 1,000,000 times

