CA80 Capnometer User Manual

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1 Intended use

The CAPNOMETER Emergency Capnograph Monitor measures, displays and monitors carbon dioxide concentration and respiratory rate during anesthesia, recovery and respiratory care. It may be used in the operating suite, intensive care unit, patient room, clinic, emergency medicine and emergency transport settings for adult and pediatric patients.

2 Safety Information

2.1 Warnings

Adhere to the following warnings for safe operation of Capnometer Emergency Capnograph.

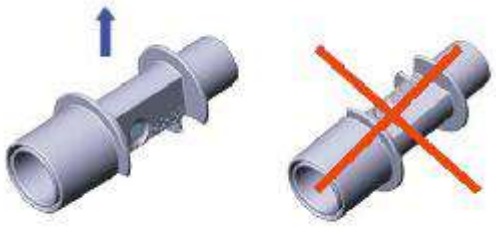
WARNING! Capnometer Emergency Capnograph should only be used for the purpose and in the manner described in the manual.

WARNING! Use only Prior-care manufactured Airway Adapter.

WARNING! Airway Adapters shall not be reused. Used airway adapters shall be disposed of in accordance with local regulations for medical waste.

WARNING! The user must be aware that the Airway Adapter will add 6 ml dead spaceto the breathing circuit.

WARNING! To prevent “rain-out” and moisture from draining into the Airway Adapter,place the adapter in the vertical position as shown in the picture below.



WARNING! The user must be aware that light transmission can be affected by water rainout/condensation in the airway adapter if a heated humidifier is used. Dry or change airway adapter if necessary.

WARNING! Check all alarm settings before use.

WARNING! Audible alarm volume of any monitor may not be heard in some loud environments, such as when sirens are in use and the care provider is more distant from the alarm source. Alarm volume should be tested with the extremes of your noise environment to confirm ability orlimitations to hear an alarm in all circumstances of the environment.

2.2 Cautions

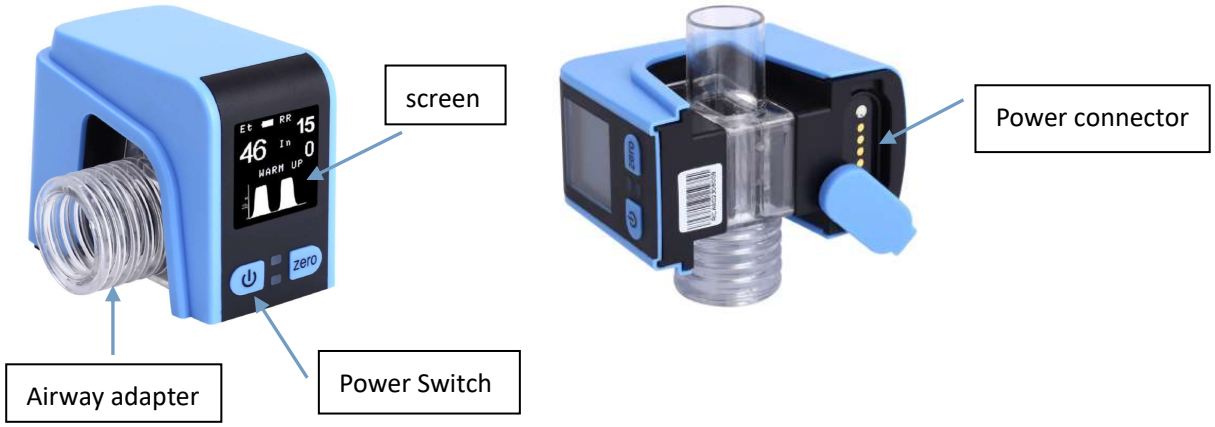
CAUTION! The airway adapters are non-sterile devices. Do not autoclave the devices as this will damage them.

CAUTION! Never sterilize or immerse Capnometer in liquid.

CAUTION! Do not operate Capnometer at ambient temperatures less than 5°C or greater than 50°C.

3 Device Description

3.1 Overview



3.2 Airway adapter

for adult

for pediatric

Note: The unit of ETco2 and Inco2 is mmHg. 1mmHg CO2 means (1 / 7.6)% CO2 (sea-level)
The unit of Rr is bpm (Breath per minute)

4 Preparation for Use

4.1 Setting up

Please charge the battery before using it. It can be used for 6.5 hours after it is fully charged. The green light will be on during charging.

4.2 Starting up

Attach the Airway Adapter to the Capnometer. Check that it is properly fitted and press the power on button. A start-up sequence will be initiated to check the proper functioning of all display .

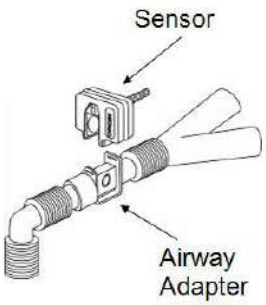
When you turn on the capnometer, it must be preheated so that the screen will display ”warm up” before it can be measured until it is gone. It takes about 30-90s.

When the Capnometer is ready, the end tidal CO_2 (ETCO2) and the inspirate CO2 (INCO2) display indicates 0, the Respiratory Display indicates “- -“.

4.3 Switching off

Long press the power switch, the device will be off .

4.4 Connecting the Capnometer to a breathing circuit



4.5 Calibration zero

If the sensor indicates zero required or the baseline on the display screen is too high, press the on/off button twice in 2 seconds (short press), the machine will perform zero and display "Zeroing" after the user confirms that there is no breathing air in the mainstream adapter. The ”zeroing” process takes about 10S-15S.

4.6 Use attention

If the screen show “chk adapt”, the airway adapter may be polluted by water vapor, dry or change airway adapter if necessary.

5 Alarm

Low battery: If the battery is out of power, the battery icon will flash. The volume alarm level 1.

Check adapter: The screen will show “CHK ADPT ” , etco2 ,inco2 and rr will display “--” . The volume alarm level 1.

Etco2 too high: If the etco2 value more than 48mmHg, the value will flash. The volume alarm level 2.

Etco2 too low: If the etco2 less than 28mmHg, the value will flash. The volume alarm level 2.

Inco2 too high: If the inco2 more than 7mmHg, the value will flash. The volume alarm level 2.

Rr too high: If the respiration rate more than 30 bpm, the value will flash. The volume alarm level 2.

Rr too low: if the respiration rate less than 8 bpm, the value will flash. The volume alarm level 2.

Apnea: the screen will show “APNEA! ” , rr will display “--” and flash, etco2 and inco2 will display “0”. The volume alarm level 3.

The volume alarm level	Priority	Voice	The time interval
Level 1	Low	Du	12s
Level 2	Medium	Du-Du	12s
Level 3	High	Du-Du-Du	6s

6 Capnometer and Accessories

Capnometer X1

Airway adapter for adult X1

Airway adapter for pediatric X1

Power adapter X1

USB cable X2

7 Maintenance and Service

7.1 Cleaning

Capnometer can be cleaned using a cloth moistened with isopropyl alcohol.

Notice: DO NOT immerse Capnometer in any liquid.

7.2 Airway adapter

The Airway Adapters are intended for single patient use. They are disposable and shall not be re-used.

Treat used Airway Adapters in accordance with hospital protocol for disposable items.

The Capnometer and the Airway Adapter shall be disposed in accordance to local regulations for recyclable products. Dispose the old batteries according to local regulations.

7.3 Gas span check

Gas readings should be verified at regular intervals with a reference instrument.

7.4 Service and product return requirement

Please contact factory about how to return a product for service using the contact details under Important User Information on the front inside cover of this manual. Products under warranty will be exchanged free of charge except for the cost of inbound freight.

8 Technical Specifications

8.1 Standard：

Obey YY0601 and ISO21647 Requirements

8.2 CO2 Concentration Measuring Range：

0 – 99 mmHg

8.3 CO2 Concentration Measuring Accuracy

Concentration Range	Accuracy
0-40mmHg	±2 mmHg
41- 70 mmHg	±5% of reading
71 – 99mmHg	±8% of reading

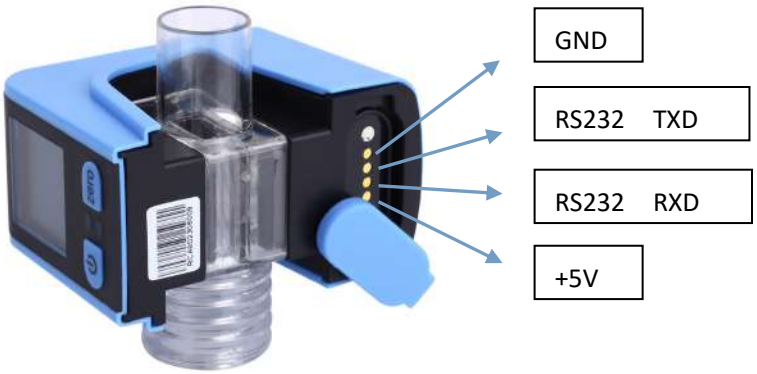
8.4 Respiration Rate Measuring Range：

3 - 99 BPM Accuracy：±1BPM

8.5 Charge Voltage Requirements：

5.0VDC ±5%, 1A

Li-Battery can use 6.5 hours.



8.6 Temperature and Humidity：

Operating: 5℃ to 45℃, 10 to 90% RH

Storage: -40℃ to 70℃, < 90% RH