

Capnography Module (92517)

Quick Start Guide



NOTE: This reference guide is intended for a quick start of Capnography Module. For detailed information, refer to the Clinical Parameters Operations Manual.

Spacelabs training acknowledgement

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It is recommended that you review the Operations and Service Manuals in conjunction with viewing these materials.

All data shown in this video is from Spacelabs' simulation program and is not actual patient data.
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Overview

The 92517 Capnography Module is designed to measure the concentration of end-tidal CO₂ and aid in determining the patient's ventilatory, circulatory, and metabolic status.

Features

- Mainstream and Sidestream monitoring modes
- Measurement of end-tidal CO₂, minimum CO₂, and Respiratory Rate
- N₂O and O₂ compensation to assure measurement accuracy
- Automatically compensates for ambient barometric pressure assuring measurement accuracy

NomoLine supplies and accessories

The NomoLine supplies and accessories for Capnography and Multigas monitoring features:

- NomoLine is optimized for low flow applications (50 ml/minute).
- NomoLine measures ETCO₂ in all patients, neonates through adults.
- NomoLine measures ETCO₂ in patients with low tidal volumes and high respiration rates (up to 150 bpm).
- NomoLines have a 1mm internal diameter.
- NomoLine features one flow direction for unaffected waveform.
- NomoLine No-moisture technology removes water which extends the life of the product and eliminates the need for a water trap, available in high or low humidity designs.
- Use only genuine Masimo NomoLine capnography supplies, which are available through Spacelabs.

Mainstream EtCO₂ Monitoring

Mainstream EtCO₂ monitoring is used on intubated patients only.

The module uses specially designed airway adapters for adult/pediatric and infant patients and a CO₂ sensor cable.

Airway Adapters
Adult/Pediatric or Infant
Single use only



CO₂ Sensor
Do not dispose.



To start mainstream Capnography monitoring

1. Insert the module into the monitor housing.
2. Connect the mainstream connector to the module's mainstream pot
3. Snap the CO₂ sensor on the top of a new airway adapter. It clicks into place when placed correctly.
4. Allow the module to warm up for a minimum of 10 seconds.
5. Connect the airway adapter to the ventilator circuit.

Mainstream port



CO₂ Sensor



Sidestream EtCO₂ Monitoring

Sidestream EtCO₂ monitoring can be used on intubated patients using a ventilator airway adapter sampling line or on non-intubated patients using a nasal cannula sampling line. The sidestream mode uses Masimo NomoLine capnography supplies, in high- or low-humidity designs.

See <https://www.spacelabshealthcare.com/products/supplies/> for ordering information.

Light Emitting Gas Inlet

The Capno Module has a light emitting gas inlet (LEGI) which detects the presence of a sidestream NomoLine adapter. The LEGI shows color-coded status information. A steady green light indicates system is ready for use.

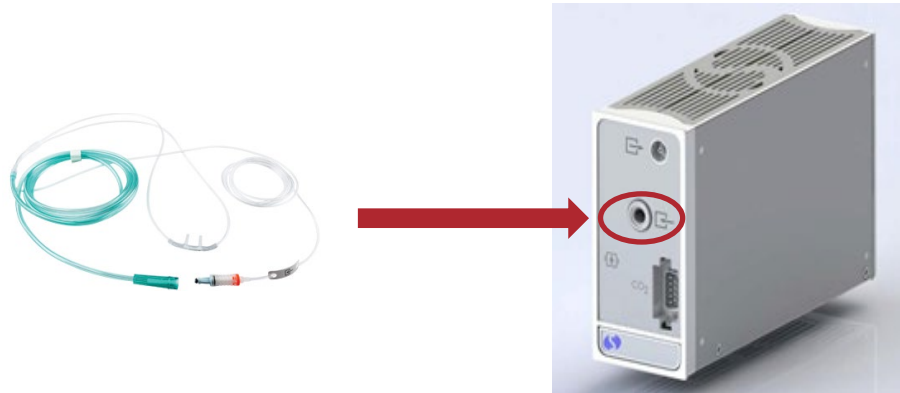


Indication	Status
Steady green light	System OK
Blinking green light	Zeroing in progress
Steady red light	Sensor error
Blinking red light	Check sample line

CAUTION: RED LIGHT, EITHER STEADY OR BLINKING, MAY REQUIRE REPLACEMENT OF THE NOMOLINE ADAPTER FILTER.

To start sidestream Capnography monitoring

1. Insert the module into the monitor housing.
2. Before putting the Nomoline adapter on the patient, connect the Nomoline adapter to the inlet sample port.
3. Touch GAS on the Monitor Screen and allow the module to warm up for a minimum of 10 seconds.
4. Secure the integrated cannula (non-intubated) onto the patient or airway adapter (intubated) into the breathing circuit as directed by the instructions for use of the Nomoline device.



Setting Alarms

1. Touch **GAS** → **ALARM LIMITS**
2. Select an alarm: Apnea, RR, EtCO₂, or MinCO₂
3. Turn ON the alarm, select the setting and adjust with the arrows.

Suspend CO₂ sampling

1. Touch **GAS** → **SETUP** → **SUSPEND CO₂**
2. Confirm **YES**

The message Sampling Suspended shows on the display.

Resume CO₂ sampling

1. Touch **GAS** → **RESUME CO₂**
2. Confirm **YES**

The Capnography waveform and measurement will resume.

Note: To maintain the optimum life of the adaptor, it is recommended to suspend CO₂ sampling while giving any inhalation breathing treatment.

It is recommended to suspend CO₂ sampling if the patient is:

- Not being monitored
- Is receiving nebulized treatment.

Note: Suspending the CO₂ sampling during breathing treatments will extend the life of the NomoLine adapter filter.

Selecting Gas Compensation

1. Touch **GAS → COMP**
2. Touch **O₂ COMP** (if nitrous oxide is being delivered, turn **N₂O COMP ON**)
3. The appropriate O₂ comp setting is determined by the % of O₂ the patient is receiving.
 - Off <30%
 - 30% - 70%
 - 70% - 100%

Note: The presence of oxygen and nitrous oxide affect the measurement of CO₂ by infrared analysis. Appropriate compensation must be enabled to take accurate CO₂ measurements when increased levels of O₂ or N₂O are present in the airway.

Mainstream – Zeroing Procedure

Zero ONLY when a **GAS** reading does not show 0%, or when an unspecified accuracy message shows.

To perform the zeroing procedure, snap a new mainstream airway adapter into the CO₂ sensor.

- Do not connect the airway adapter to the patient circuit.
- Before doing the zeroing procedure, let the module warm up for 10 seconds.
- Always do a pre-check after zeroing.

Pre-Use Check

- Make sure that the gas reading and waveforms on the monitor are correct before you connect the airway adapter to the patient circuit.
- Make sure that the patient circuit with the sensor is snapped firmly on the airway adapter.

Sidestream – Zeroing Procedure

Zero reference automatically calibrates on a regular basis. The module does the zeroing process automatically, by switching the gas sampling from the respiratory or circuit to ambient air.

During auto zero calibration:

- A **ZERO IN PROGRESS** message is shown on the display.
- Automatic zeroing is done every 24 hours.
- Zeroing takes less than 3 seconds to complete.

To start the manual zeroing procedure for either Mainstream or Sidestream:

1. Place the sampling line or sensor in room-air away from any gases or breath.
2. Touch **GAS → SETUP**
3. Touch **CAL → ZERO → YES**

Warning: Do not breathe near the airway adapter or sampling line before or during the zeroing procedure to ensure the presence of 21% O₂ and 0% CO₂.

Mainstream – CO₂ Sensor

Cleaning and care instructions:

- Remove the disposable airway adapter before you clean the CO₂ sensor.
- To clean the CO₂ sensor, use a cleaning solution with a maximum of 70% ethanol or a maximum of 70% isopropyl alcohol.
- Do not sterilize or immerse the CO₂ sensor in liquid.
- Do not apply tension to the sensor cable.
- Do not operate the CO₂ sensor outside the specified operating temperature environment.

NOTE: This document is intended as a quick start guide. For more detailed information, refer to the product Clinical Parameters Operations Manual (P/N 070-2113-xx).

Contact Information

Technical Support: 1-800-522-7025 Available 24 hours a day and 7 days a week.

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