

Ensure peak performance.

Calibration and preventive maintenance for Microstream™ technology-enabled patient monitors

Performing calibration and periodic preventive maintenance provides the highest level of monitor performance and quality end-tidal CO₂ (etCO₂) sampling. The schedule is based on the number of operating hours, which can be accessed any time by checking the information screen in service mode.

Preventive maintenance

Capnostream™ 20p bedside monitors, Capnostream™ 35 portable respiratory monitors, and RespArray™ patient monitors

- For RespArray™ and Capnostream™ 35 monitors: Every 2 years
- For Capnostream™ 20p monitors: Every 30,000 hours
- For detailed directions on specific preventive maintenance requirements, please refer to the specific operator's manual corresponding to the correct monitor: manuals.Medtronic.com/manuals/main/region

To schedule maintenance, contact Medtronic technical services at 1-800-255-6774, option 1. Or email hqtsweb@covidien.com for more information.

OEM capnography patient monitors

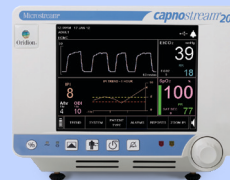
Periodic preventive maintenance should be performed after 20,000 or 30,000 operating hours, as per the recommendation, of the particular module in your system. Refer to the operator's manual or contact the service department of the monitor's manufacturer.

Battery life

The Capnostream™ 20p and Capnostream™ 35 monitors utilize a Lithium-Ion rechargeable battery. Battery back-up time may degrade over time. To avoid degradation of battery capacity, it is recommended that the battery pack be replaced every two years for the Capnostream™ 20p. For the Capnostream™ 35, it is recommended that the battery pack be replaced every 4 years for devices in use in hospital settings and every 2 years for devices in use in EMS settings. For the RespArray™ patient monitor, it is recommended to replace the lithium battery after 300 charge-discharge cycles.



RespArray™ patient monitor



Capnostream™ 20p bedside monitor



Capnostream™ 35 portable respiratory monitor

Calibration schedule

Capnostream™ 20p bedside monitors, Capnostream™ 35 portable respiratory monitors, and RespArray™ patient monitors

“Calibration Required” is displayed on the monitor when it is time to calibrate. To maintain optimal performance, clinicians should immediately contact the biomedical/clinical engineering department to perform the calibration. Refer to operator’s manuals for calibration details.

For questions about calibration for Medtronic monitors, contact Medtronic technical services at 1-800-255-6774, option 1. Or email hqtsweb@covidien.com for more information.

OEM capnography patient monitors

New OEM units are delivered factory calibrated. After installation, an initial calibration should be performed at 1,200 operating hours.

Following the initial calibration, biomedical/clinical engineering should perform calibration every 4,000 operating hours or annually, whichever comes first.

Specifications for calibration gas for CO₂ measurement system

Type

5% carbon dioxide ($\pm 0.03\%$), 21% oxygen ($\pm 0.5\%$)

Cylinder size

BD aerosol cylinder

Method of preparation

Gravimetric

Moisture

10 ppm maximum

Expiration period

2 years

Pressure

144 psig

Volume

10 liters

Product code

Z03NI748BDC002 (legacy number T4653ORF-2BD)-2-pack. Please refer to either number when ordering.

Calibration Kit Ordering Information

Order calibration kits through Airgas, Scott Medical Products Division

Airgas

Scott Medical Products Division

6141 Easton Rd

Plumsteadville, PA 18949

800-233-4334, option 2

For customers with access to calibration gas, obtain calibration kit from Medtronic, part number RS09251.



[medtronic.com/covidien](https://www.medtronic.com/covidien)

Use of non-validated, third party consumables may invalidate the warranty of the monitor.