Sentec Digital Monitoring System (SDMS)

Quick Reference Guide
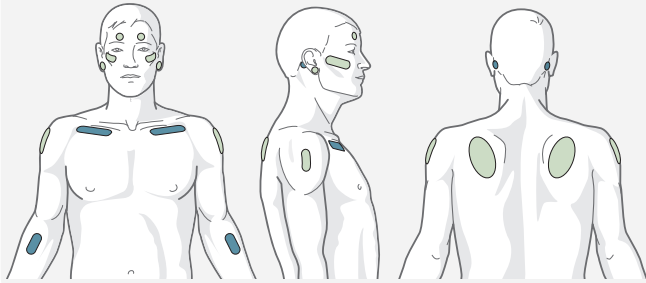
Software version
SMB SW–V08.03 and higher

## Adult mode

`Adult´ if older than term birth + 12 months

Selection of Measurement Site and Sensor Attachment Accessory

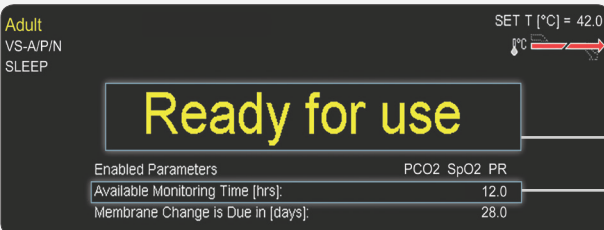● = PCO$_2$ ● = PCO$_2$ /SpO$_2$/PR

Attachment Accessory

Earlobe:
Use Ear Clip for mature, intact skin.

All other sites:
Use MAR/e–MI for mature, intact skin or MAR/e–SF for sensitive, fragile skin.

WARNING: Refer to the Instruction Manual for the SDMS, Technical Manual for the SDM or the respective Directions for Use of the sensor and/or disposables for warnings, cautions and additional information such as instructions, routine checks, or maintenance recommendations. These are available on **www.sentec.com/ifu**

Check SDM Settings, System Readiness and Sensor Condition before Use

Adult
VS-A/P/N
SLEEP

SET T [°C] = 42.0
°C

Ready for use

Enabled Parameters   PCO2 SpO2 PR
Available Monitoring Time [hrs]:   12.0
Membrane Change is Due in [days]:   28.0

Ensure current SDM Settings/ SDM Profile are appropriate for the patient, for the selected site and the skin condition/skin tissue perfusion at the selected site.

Verify system readiness (message '**Ready for use**') and check the '**Available Monitoring Time**'.

When removing the sensor from the Docking Station, check the condition of its membrane and its integrity before applying it to the patient. Change the membrane if necessary. Do not use the sensor if any problems are noted.

sentec.

Sensor Application Using a Multi-Site Attachment Ring

1 Clean the site and let it dry. If necessary, remove hair.

2 Attach the Multi-Site Attachment Ring (MAR/e) to the measurement site. Verify that the skin under the adhesive is not wrinkled.

3 Apply **1–2** drops of Sentec Contact Gel to the skin area in the center of the ring. Avoid wetting the adhesive tape!

4 Holding the sensor at its neck, approach the MAR/e and first insert the nose of the sensor into the ring. Click in the sensor by applying slight downward pressure on its neck. Rotate the sensor in the ring into the best position and press the sensor gently against the skin to spread the Contact Gel. Verify that air gaps between the skin and the sensor are eliminated and that the sensor can easily be rotated.

5 Tape the cable to the skin and secure it with a Clothing Clip on the patient's clothing or bed linen. For forehead/cheek placement, wrap the cable once around the ear first. Ensure that the sensor cable is loose enough for not to be stretched during monitoring. Gently press on the sensor as a final application check.

Note: If more secure sensor attachment is required, e.g. in high humidity environments, for patients who perspire profusely and/or in challenging patient motion conditions, the **Staysite™ Adhesive** (model **SA-MAR**) can be used complementary with the Multi-Site Attachment Rings.

Patient Monitoring

After sensor application, verify that the SDM detects 'Sensor-On-Patient', initiates monitoring and the enabled parameters stabilize. If necessary, readjust sensor application or reposition the sensor.

Various preconfigured measurement screens are available.

Note: SpO_2 and PR usually stabilize within a few seconds. PCO_2 typically increases to reach a stabilized value within 2 to 10 minutes.

Press the **Display Button** (⊡) to cycle between the available screens. Press the **Enter Button** (↵) to open a 'Quick Access Menu' permitting to set a baseline, to set a RHP reference, to mark 'Operator Events' or to perform a 'PCO_2 In-Vivo Correction'.
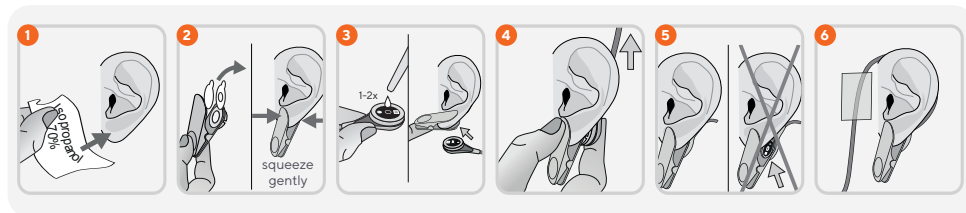

Enter Button

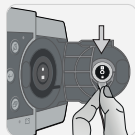**Display Button**

Sensor Application Using an Ear Clip

1 Clean the earlobe and let it dry. If necessary, remove hair.

2 Attach the clip to the earlobe with the retainer ring on the backside of the earlobe. Verify that the skin under the retainer ring's adhesive is not wrinkled and that the hole in the center of the retainer ring completely covers the skin.

3 Take the sensor and apply **1–2** drops of Contact Gel in the middle of the sensor surface. Ensure that the gel does not run off the sensor face. Pull the earlobe with the Ear Clip in horizontal position. Snap the sensor into the clip.

4 Guide the earlobe back in vertical position and – if this is not the case yet – rotate the sensor such that its cable points to the crown of the head.

5 Verify the entire dark surface of the sensor is covered by the earlobe, that air gaps between the skin and the sensor are eliminated and that the sensor can easily be rotated.

6 Wrap the sensor cable around the ear once, tape it to the cheek as shown in the picture, and secure it with a Clothing Clip on the patient's clothing or bed linen. Ensure that the sensor cable is loose enough for not to be stretched during monitoring. Gently squeeze the sensor and Ear Clip as a final application check.

Sensor Removal

When monitoring is completed or monitoring time has elapsed, remove the sensor from patient and clean/inspect the skin. Clean the sensor. Inspect condition of membrane and integrity of sensor before inserting it into the Docking Station.

Caution: For site inspection and/or calibration, the sensor attachment accessory can remain on the same site for up to 24 hours and may be reused for another sensor application. It is recommended to remove and to discard the attachment accessory after 24 hours and to keep the measurement site free of adhesive for 8 to 12 hours.

IMPORTANT:

- Clean sensor after use!
- Check condition of membrane and integrity of sensor prior/after use!
- To maintain monitor readiness and minimize PCO_2 drift potential, keep SDM powered on and store sensor in Docking Station in between monitoring!

Sensor Calibration

If a sensor calibration is **mandatory,** the message '**Calibrate sensor**' is displayed and PCO_2 values are replaced by '**---**'.

Calibration Intervals for Sentec TC Sensors can last up to 12 hours. Once elapsed, calibration is **recommended** and monitoring possible for another 4 to 6 hours (PCO_2 '**questionable**'). Thereafter, sensor calibration is **mandatory.**
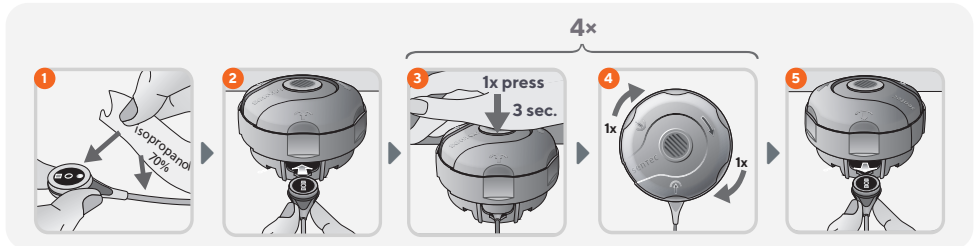
Changing the Sensor Membrane

If the '**Membrane Change Interval**' has elapsed, the SDM displays the message '**Change sensor membrane**' and marks PCO_2 values as invalid ('---').

Use the QR code at left to navigate directly to our Membrane Change tutorial video. **https://sentec.com/tv/v0/**

Without being requested by the SDM, the sensor membrane must **also** be changed if it is damaged or missing, has a loose fit, or if there is trapped air or dry electrolyte under the membrane.

IMPORTANT: In default settings, the 'Membrane Change Interval' is 28 days. It can be customized.

Product Support Site

Quickly access tutorial videos, FAQs, and manuals through our Online User Guide.
https://www.sentec.com/onlineuserguide

Sentec AG, Ringstrasse 39, CH-4106 Therwil, Switzerland, **www.sentec.com**

ϵ **0123**