Quick Reference Guide

For the Sentec Digital Monitoring System

(Software version SMB SW-V07.01; MPB SW-V05.01)

Routine Use



Prior to usage, verify that the message 'Ready for Use' is displayed on the monitor.

Check: 1) the current profile, 2) the selected patient mode (Adult/ Neonatal), 3) the temperature settings, and 4) the available monitoring time. Refer to the table below to choose the desired measurement parameter, application sites, and recommended sensor accessory.

Check condition of membrane and integrity of sensor.

Measurement Sites and Sensor Application for V-Sign[™] Sensor 2 VS-A/P/N

Adult / Pediatric Patients (> 1 month of age)

Parameter	Measurement Site	Skin Condition	Application Accessory
tcPCO ₂ , SpO ₂ /PR	Earlobe	intact	Ear Clip
	Low on forehead, cheek	intact	MAR-MI
		sensitive, fragile	MAR-SF
tcPCO ₂	Earlobe	intact	Ear Clip
	Low on forehead, cheek, thorax under clavicle, upper arm, area behind earlobe	intact	MAR-MI
		sensitive, fragile	MAR-SF
SpO ₂ /PR	Earlobe	intact	Ear Clip
	Low on forehead, cheek	intact	MAR-MI
		sensitive, fragile	MAR-SF

Neonates (up to 1 month of age)

Parameter	Measurement Site	Skin Condition	Application Accessory
tcPCO ₂	Thorax under clavicle, abdomen, back, low on forehead, inner or anterior aspect of the thigh	mature, intact	MAR-MI
		sensitive, fragile	MAR-SF

Note: For V-Sign[™] Sensor VS-A/P (grey cable) SpO₂/PR monitoring is only approved for the earlobe of adult/pediatric patients.

Note: Verify that SpO₂/PR parameters are disabled, if these parameters are not approved for the selected measurement site.





Sensor Application using an Ear Clip

1. Clean the earlobe with a swab wetted with 70% isopropanol and let it dry. Insert the sensor into Ear Clip, remove both covers of adhesive tapes and place one small drop of contact liquid⁽¹⁾ on surface of sensor. Hold sensor such that the contact liquid does not roll off the sensor face.

2. Pull earlobe in horizontal position. Move the sensor horizontally into place and attached to the back of the earlobe. Close clip from above, then guide earlobe back in vertical position.

Note: Verify that the whole dark surface of the sensor is covered by the earlobe. Ensure that air gaps are eliminated between the skin and the sensor.

3. Wrap cable around the ear once and tape the cable to the cheek as shown in the picture. Provide a small squeeze with your fingers to the sensor and Ear Clip as a final security check. Secure sensor cable with Clothing Clip on shirt or bed linen.

⁽¹⁾ Contact liquid: SenTec's Contact Gel, clean tap water, sterile water, or sterile saline solution.

WARNING: Application of any pressure to the measurement site (e.g. by using a pressure bandage) may cause pressure ischemia at the measurement site and, consequently, inaccurate measurements, necrosis or - in combination with heated sensors - burns.

Sensor Application using a Multi-Site Attachment Ring





1. Remove hair if necessary. Clean the skin at the measuring site with swab wetted with 70% isopropanol (for neonates may only use water) and let it dry.

2. Remove cover of the attachment ring's adhesive tape and attach the ring to the measuring site. Press gently on snap ring. Move your finger around the ring circumference to ensure a good adhesion of the entire adhesive to the skin.

3. Apply one small drop of contact liquid⁽¹⁾ to the skin area in the center of the attachment ring. Ensure that the liquid does not wet the adhesive.

4. Holding the sensor at the cable strain relief, approach the MAR from the flap side and first insert the nose of the sensor into the ring. Then apply a slight downward pressure on the cable strain relief. Twist the sensor in the ring and press the sensor gently against the skin to spread the contact liquid⁽¹⁾. Ensure that air gaps are eliminated between the skin and the sensor. Tape the cable to the skin and secure it with Clothing Clip on shirt or bed linen. For forehead/ cheek placement, wrap the cable once around ear first.

Note: Alternatively you may click the sensor into the Multi-Site Attachment Ring first and then attach the assembly to the skin.

⁽¹⁾ Contact liquid: SenTec's Contact Gel, clean tap water, sterile water, or sterile saline solution.

WARNING: Application of any pressure to the measurement site (e.g. by using a pressure bandage) may cause pressure ischemia at the measurement site and, consequently, inaccurate measurements, necrosis or - in combination with heated sensors - burns.

Patient - Monitoring

Verify that tcPCO₂ is rising initially (tcPCO₂ stabilization period) and that the readings for SpO, and PR, if enabled, are stable. If needed, reposition the sensor.

After Monitoring

When monitoring is completed, or monitoring time has elapsed remove sensor from patient and check the skin, condition of membrane, and integrity of sensor. Clean the sensor with a swab wetted with 70% isopropanol and always store it in docking station.

IMPORTANT:

Clean sensor after use! Check integrity of sensor prior/ after use!

Keep the monitor switched on and store the sensor in the docking station in between monitoring.

Maintenance Intervals



4x



Membrane

Change the sensor membrane at least as requested by the monitor. Place Membrane Changer on a solid flat surface. Hold the sensor head with the membrane face upwards and insert the V-Sign[™] Sensor into the Membrane Changer. Keep the Membrane Changer horizontal while repeating the following procedure 4 times:

- 1. Press down slowly but firmly with the heel of hand.
- 2. Grab base of tool with one hand, turn top clockwise with other hand to next stop.

At the end, lift the senor to remove it from the tool and verify that the membrane is securely seated. Confirm the membrane change on the monitor and place the sensor in the docking station. A calibration will start.

Refer to the Instruction Manual, the Technical Manual or the respective Directions for Use of the sensor and/or disposables for additional information such as instructions, routine checks, or maintenance recommendations.



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