Changing the Sensor Membrane

The membrane of a SenTec TC Sensor must be changed if the 'Membrane Change Interval' has elapsed. In this case, the SDM displays the message 'Change sensor membrane', triggers a low priority alarm, marks PCO₂/PO₂ as invalid and activates the menu 'Membrane Change' - provided the sensor is in the Docking Station. Additionally, the sensor membrane must be changed if it is damaged, not properly seated, or if there is trapped air or dry electrolyte under the membrane.

💡 Good to know!

The 'Membrane Change Interval' is set to 28 days by default (recommended). Depending on the specific requirements of various clinical settings, the interval can be customized.

⚠️ CAUTION: Without being requested by the SDM, the sensor membrane must additionally be changed if any of the conditions described in the section 'Checking a SenTec TC Sensor' (p. 15) apply.

⚠️ CAUTION: The Contact Gel is not needed in any of the membrane change steps. The Contact Gel is only used for sensor application.
Note: A Membrane Change Tutorial is available for online viewing at www.sentec.com/tv/v0.

Note: The Membrane Changer can be reused by replacing its insert. To prepare the Membrane Changer for reuse, refer to the Directions for Use of the Membrane Changer Inserts or see tutorial at www.sentec.com/tv/v1.

Inserting Sensor into Membrane Changer

1. Verify that the sensor is clean before changing its membrane. If necessary, carefully wipe off any residue from the sensor’s surface (including membrane, housing, groove and cable) with 70% isopropanol (for other approved cleaning agents refer to sentec.com/ifu).

2. Place the Membrane Changer on a horizontal, dry surface with the colored dot facing up.

3. Insert the sensor into the Membrane Changer with the sensor side facing up. The insert receiver 1 is designed so that improper alignment of the sensor is difficult if not impossible.
**Note:** Neither touch nor hold the sensor cable while the sensor is inside in the Membrane Changer nor pick up the Membrane Changer as this may lead to dislodging the sensor from the Membrane Changer.

**Four Press-and-Turn Steps to Change the Membrane**

The membrane change procedure consists of four identical press-and-turn steps. To provide better guidance, these steps are marked with the corresponding numbers on the Membrane Changer.

**Step 1** removes the old sensor membrane: Press down slowly but firmly with palm of hand and hold for 3 seconds. Release the top. Carry out a visual check to ensure that the membrane is removed. Turn the top portion one click clockwise to the next step. Keep the Membrane Changer horizontal.

**Step 2** cleans the sensor surface from old electrolyte: As in step 1, press the membrane changer slowly but firmly, release the top and turn clockwise to the next step.

**Step 3** applies new electrolyte on the sensor surface: Press the membrane changer slowly but firmly for 3 seconds, release the top and turn clockwise to the next step.

**Step 4** places a new membrane on the sensor: Press the membrane changer top down slowly but firmly for 3 seconds, release the top and turn clockwise to the √ symbol.
Keep the Membrane Changer horizontal while executing the following Press-and-Turn step 4 times:

**a.** Press down slowly but firmly with palm of the hand and **hold for 3 seconds.**

**b.** Turn the top portion one click clockwise to the next stop. Keep the Membrane Changer horizontal! Hold the changer’s bottom half in place while turning the top half.

**Note:** Do not press down on the top while turning!
Removing Sensor from Membrane Changer

Press one last time or lift the sensor and remove it from the Membrane Changer. The ✓ symbol indicates that the membrane change is completed.

Inspecting Sensor Membrane

Check the condition of the sensor membrane and the integrity of the sensor (p. 15). Repeat the membrane change if necessary. Do not use the sensor if any problems are noted.

Confirming Membrane Change on SDM

Once the inspection of the sensor membrane is completed successfully, confirm the membrane change on the monitor (menu ‘Membrane Change’).

**Note:** The membrane timer only resets if you confirm the membrane change on the monitor.

**Note:** The menu ‘Membrane Change’ is only accessible if the Docking Station Door is open.