8.5 Calibrating CEREC Omnicam

The measurement procedure used by the system requires the use of a calibrated CEREC Omnicam. The CEREC Omnicam is factory calibrated. If calibration is required, you can use the supplied CEREC Omnicam calibration set for this purpose. The supplied calibration set and a USB stick form a single unit.

Recalibrate the CEREC Omnicam in the following cases:

- following transport (shaking stress) or during first commissioning
- after storage in unheated or un-air-conditioned rooms (temperature differences exceeding 30°C)
- with temperature differences of over 15°C between the last calibration and operation

Prior to the first calibration

The serial number of the calibration set to be used has been set on the CEREC AC with Omnicam at the factory. Prior to the first calibration after changing the PC and when switching the calibration set, you must enter the serial number of the calibration set to be used in the software. If you do not wish to do this, you can continue with "Start calibration [→ 54]".

When entering the serial number, the following steps should be followed:

1. Start the CalibRegistry.exe application on the USB stick included with delivery of the calibration set.
2. Enter the 8-digit Sirona ID. You can find the ID on the sticker on the calibration set.
   - ⮡ With all future calibration work involving the *"Doc Bar"* software, you will be prompted to use this calibration set.

Start calibration

1. In the software, navigate to the system menu, and click on the *"Configuration"* button.
2. Click the *"Devices"* button.
3. Click the *"Omnicam"* button.
4. Click the *"Calibrate"* button.
   - ↳ The camera view is displayed in one window.
5. Follow the prompt to set up the calibration set with the corresponding ID number. At this point, check that this ID matches the ID on your calibration set. If this is not the case, go back to "Prior to the first calibration [→ 54]".

Calibrate the camera

1. Remove the protective cap from the calibration set.
2. Mount the calibration set on the tip of the camera until it locks into place.
3. Secure the CEREC Omnicam in the calibration set using one hand. Ensure that the external calibration set screw is fully screwed in in a clockwise motion until it gently locks into place.
4. Click on the *"OK"* button on your CEREC AC.
   - ↳ The measuring process starts.
   - ↳ The software prompts you to proceed to the next latching.

5. Turn the screw counter-clockwise until you reach the next latching point.
6. Click on the *"OK"* button on your CEREC AC. In doing so, ensure that the CEREC Omnicam does not move.
   - ↳ The software confirms the calibration process.
   - ↳ The software prompts you to proceed to the next latching.
7. Execute steps 5 and 6 a total of **11** times.
   - ↳ The software provides status updates on the calibration and informs you once the procedure is complete.
   - ↳ You will be prompted to measure the position of the exit window.

Measuring the position of the exit window

1. Mount the bottom side of the calibration set to the tip of the camera.
2. Click on the *"OK"* button on your CEREC AC.
   - ⮯ The calibration process is continued.
   - ⮯ Once the calibration is complete, a message is displayed indicating this.
3. Confirm the message by clicking the *"OK"* button on your CEREC AC.
⮯ The CEREC Omnicam is calibrated.

Error message during calibration

The software indicates if an error occurs during calibration. If the calibration process resulted in errors, restart the process.

End calibration

✔ The software indicates that the calibration was completed successfully.
➤ Click on the *"OK"* button.
   - ⮯ The CEREC Omnicam is calibrated.