Maintenance

Care and cleaning

WARNING - RISK OF ELECTRIC SHOCK

Repair and maintenance work may only be carried out by authorized service staff.

Do not remove any parts of the casing or carry out any repairs yourself, especially not on the interior parts of the device.

The measuring head is adjusted electrically. Do not put your fingers into the opening of the measuring head.

To avoid overheating or the risk of fire, only replace spent fuses with new ones of the same type.

Removing parts of the casing exposes you to the risk of an electric shock.

– There are no parts inside the device which can be serviced by the user.

– Any service work which needs to be performed must be carried out by trained personnel.

CAUTION - PROPERTY DAMAGE

The national disinfecting regulations must be observed in the choice of disinfectants and disinfection procedures. Please note that some cleaning agents and disinfectants may have an adverse effect on plastic components. Damage caused by such disinfectants is not covered by our warranty. The surfaces of the device have been tested and are guaranteed to resist frequent treatment with alcoholic disinfectants and cleaning agents in the long term.

Never use aggressive or abrasive cleaning agents.

☞ Ensure that no moisture penetrates the system during cleaning and disinfection.

☞ The national calibration standards for measuring devices must be observed.

The manufacturer suggests regular calibration of the device every two years. This may only be carried out by persons authorized by Carl Zeiss Meditec and solely according to the calibration instructions issued by Carl Zeiss Meditec. For planning and implementing these calibration procedures please contact ZEISS service or your local dealer (contact details see reverse).

☞ Contaminated parts with which the patient has come into contact during the examination (forehead rest) should be cleaned with a disinfectant approved for the purpose. These parts are designed to be wiped down using mild cleaning agents and disinfectants such as suds, disinfectants based on quaternary ammonium compounds (0.2 %), glutaral (2 %) or isopropanol (60 %).

Cleaning the exterior components

- All parts of the casing may be wiped off with a moist but not drip-wet cloth. Wipe off any marks or stains with distilled water, to which a drop of household washing up liquid has been added.

☞ If the forehead rest needs to be disinfected, it is sufficient to wipe it down occasionally with a sterile cloth.

Cleaning the positioning window and the air nozzle

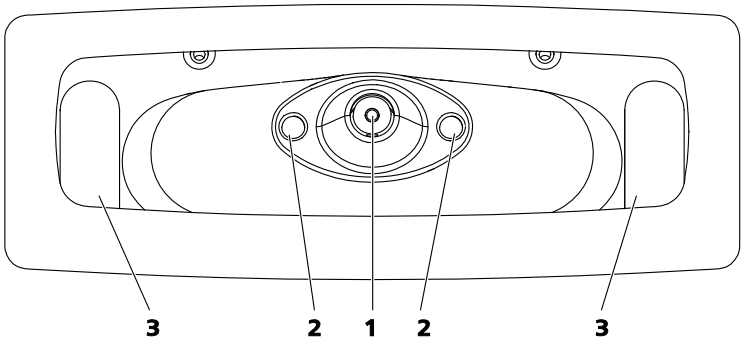
If the positioning and measuring window are contaminated with particles, this can result in inaccurate positioning signals. If the signal deteriorates, the system cannot correctly identify the position of the center of the eye, meaning that the device cannot take any measurements or can only generate measurement values with asterisks.

WARNING - RISK OF INJURY

After the inside of the air nozzle has been cleaned, touch the **Demo** symbol on the touch screen several times to remove any contamination inside the air nozzle.

CAUTION - PROPERTY DAMAGE

Do not use alcohol, solvents or strong cleaning agents as these can damage the measuring windows.



1 Air nozzle
2 Measuring window
3 Positioning window

Fig. 29 Cleaning the positioning window and air nozzle

1. Wipe the positioning and measuring windows (**3** and **2**, Fig. 29) with a cotton bud which has a long stem and is soaked in a lens cleaning solution suitable for synthetic lenses.
2. Remove any residual dust or foreign particles with clean, dry compressed air up to a maximum pressure of 620 kPa.
3. Insert a pipe cleaner several times into the air nozzle (**1**, Fig. 29) to remove any contamination from the air nozzle.
4. After cleaning the inside of the air nozzle, switch the device back on again.
5. Tap the **Demo** symbol several times (on the touch screen) to prevent any further loose contamination from adhering to the inside of the air nozzle and to blow it out before a measurement.

Cleaning the screen

CAUTION - PROPERTY DAMAGE

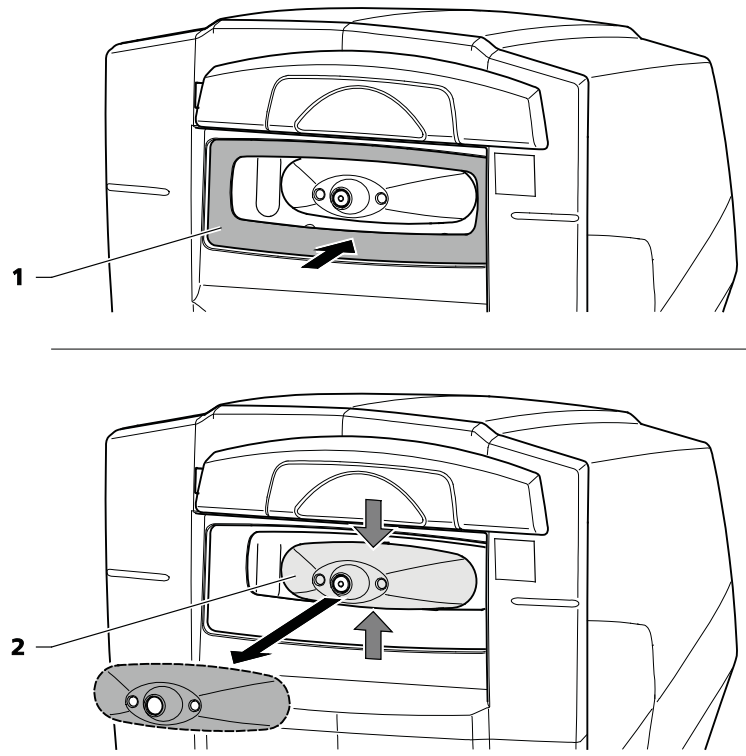
The use of ammonia-containing cleaning agents for the liquid crystal display may damage the display.

- Clean the screen using a soft, clean cloth moistened with neutral cleaning agents or ethanol.
- Do not use any chemical solvents, acids or alkaline solutions.

Safety inspections

Proceed as follows to perform a safety check of the device:

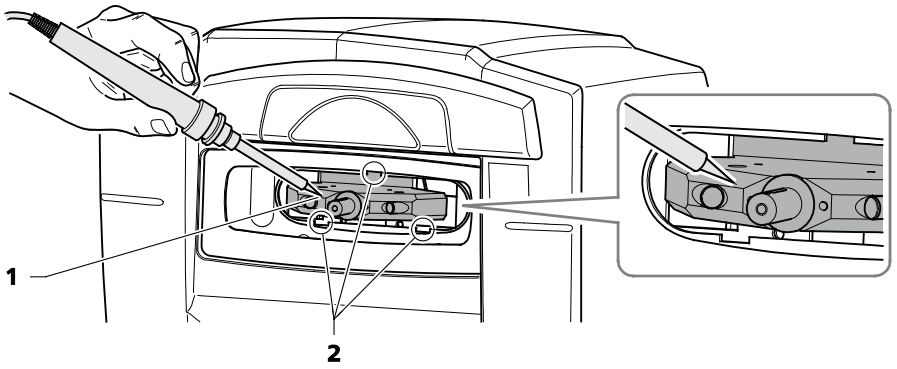
- Remove the cover of the measuring head as shown in Fig. 30. Press down the panel (**1**, Fig. 30) in the direction of the device and grasp the cover (**2**, Fig. 30) between its upper and lower side. Lightly squeeze the cover and remove it.



1 Panel
2 Measuring head cover

Fig. 30 Removing the cover of the measuring head to expose the measuring point

- Check the protective earth conductor resistance. To do this, connect the device to the measuring instrument using the power cable. Then press the measuring tip onto the measuring head frame as shown in Fig. 31. The measured value may not exceed 0.3 Ω.



1 Measuring point
2 Recesses for snap-fit tabs in the cover

Fig. 31 Measuring point on the measuring head frame

- After successful measurement, the device leakage current must be measured. This is preferably done by the differential current mode. The device is in its operating state. Press the measuring tip onto the measuring point again (**1**, Fig. 31). The measured value may not exceed 0.5 mA.
- Finally, measure the insulation resistance using a test voltage of 500 V. The measured value may not fall below 2 MΩ.
- Note down the measured values.
- Replace the cover onto the measuring head. Again, lightly squeeze the cover. Position the cover onto the mounting frame so that the snap-fit tabs on the upper and lower side of the cover are located on the corresponding recesses of the frame (**2**, Fig. 31). Release the cover.