THE IMPORTANCE OF PERFECT CALIBRATION

# Reliable results & reduced equipment downtime

With eye clinics becoming increasingly busy it is vital that all tonometry equipment is maintained to the highest possible standard. Patient safety is critical, so it is imperitive that routine checks are completed regularly. This ensures that faults are quickly identified and that all measurements are accurate. Haag-Streit guidelines advise that the calibration of your tonometer should be checked at least once every month to ensure it performs in accordance with standards and specifications.

This leaflet outlines the recommended procedures for checking tonometer calibration. It gives you advice on what to do if you find your tonometer is out of calibration during checks.

In this leaflet you will find checking procedures for the following tonometers; AT 900M/Q, AT 900 C/M and AT 900 BQ.

# Check at measuring drum setting 0

**Check position -0.05**

Turn the zero calibration on the measuring drum downwards by the width of one calibration marking, against the index marker. When the feeler arm is in the free movement zone, it should then move itself against the stop piece in the direction of the examiner.

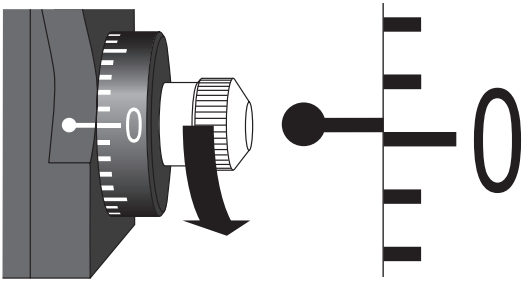



*Fig. 1: Check position -0.05*

**Check position +0.05**

Turn the zero calibration on the measuring drum upwards by the width of one calibration marking, against the index marker. When the feeler arm is in the free movement zone, it should then move itself against the stop piece in the direction of the patient.

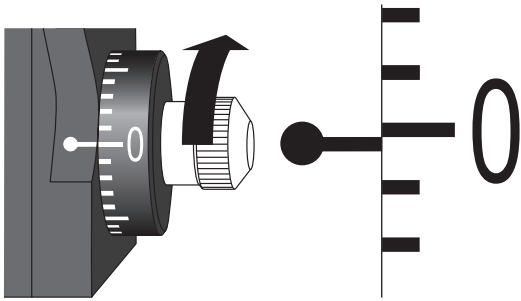



*Fig. 2: Check position +0.05*

# Check at measuring drum setting 2

For this control procedure the check weight is used. Five circles are engraved on the weight bar. The middle one corresponds to drum position 0, the two immediately to the left and right correspond to position 2 and the outer ones to position 6.

One of the marks on the weight corresponding to drum position 2 is set precisely on the index mark of the weight holder. Holder and weight are then fitted over the axis of the tonometer (1) so that the longer part of the weight points towards the examiner (Fig. 3).

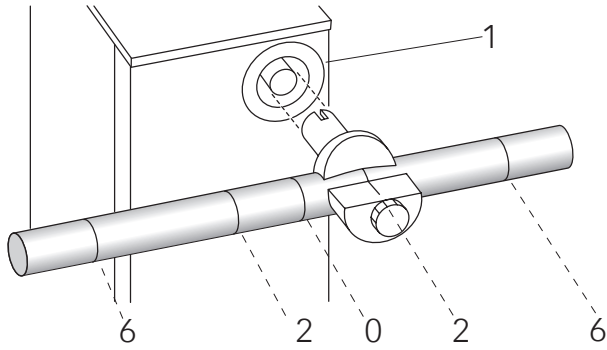



*Fig. 3: Check weight*

**CAUTION**
**This is the most important check procedure, as the measuring of the ocular pressure in this area is highly significant.**

# Check at measuring drum setting 2 (cont.)

**Check position 1.95**

When the measuring drum setting is 1.95, the feeler arm should move from the free movement zone against the stop piece towards the examiner.

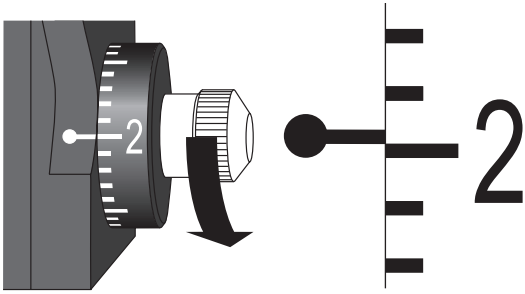



*Fig. 4: Check position 1.95*

**Check position 2.05**

When the measuring drum setting is 2.05, the feeler arm should move from the free movement zone against the stop piece in the direction of the patient.

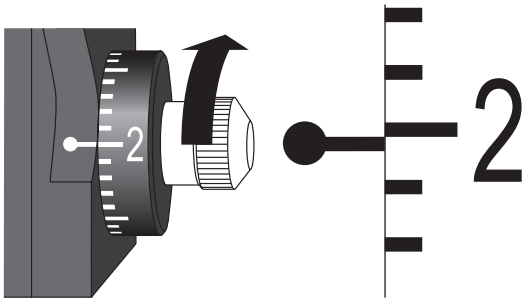



*Fig. 5: Check position 2.05*

# Check at measuring drum setting 6

Turn the weight bar to scale calibration 6, the longer part shows in the direction of the examiner (Fig. 3).

**Check position 5.9**

The check point is 5.9. The calibration marking 6 on the measuring drum is to be turned 1/2 an interval downwards. The feeler arm should move towards the examiner.

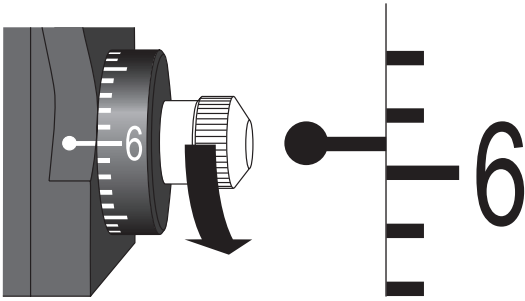



*Fig. 6: Check position 5.9*

**Check position 6.1**

The check point is 6.1. The calibration marking 6 on the measuring drum is to be turned 1/2 interval upwards. The feeler arm should move in the direction of the patient.

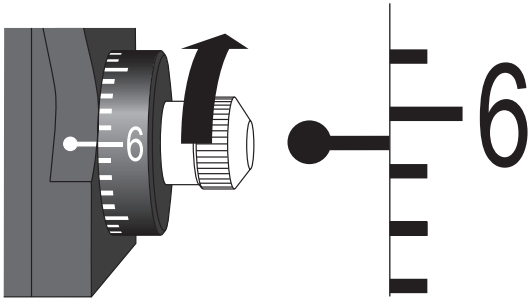



*Fig. 7: Check position 6.1*