

# IOLMaster® Quick Guide

**MEASUREMENT SEQUENCE: Perform all IOLMaster measurements BEFORE all other measurements that contact the eye**

## New Measurement



Select NEW

- Create new patient file or select existing patient.
- Use slash (/) and 4-digit year when entering date of birth, e.g. 10/04/1933.
- Select "New" – System will automatically switch to Overview Mode.

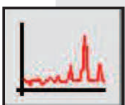
## Overview (Pre-Align)



Press <SPACE> or <A>

- Note: this step pre-aligns the instrument to the patient's eye to facilitate subsequent measurements.
- Tell patient, "Look directly at the yellow light, blink and open eyes wide."
  - Center and focus central spot in screen, press joystick button.

## Axial Length



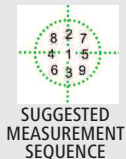
Press <SPACE> or <K>

In this mode the fixation light is red.

- Tell patient, "Look directly at the red light, blink and open eyes wide."
- Find best measurement location: Move the center spot anywhere within the measurement reticule (use the numbered positions on the illustration as a guide), and evenly focus in or focus out to find the best location. Press joystick button to measure.
- Examine measurement: To magnify waveform, left-click with cursor on horizontal axis under peak of interest; right-click to restore.
- Repeat measurement: Once the best location is discovered, all subsequent measurements are made there. Continue to measure (max. 20 per eye) until at least 4 measurements satisfy this criteria: measurements consistent within  $\pm 0.02\text{mm}$  of each other, ideal waveform, acceptable signal-to-noise ratio (SNR>2.0).
- If refraction  $> \pm 4.00\text{ D}$ , measurement may be made through patient's spectacles.
- Highlight and select <Del> to delete measurement.

### Recommended Acceptance Criteria

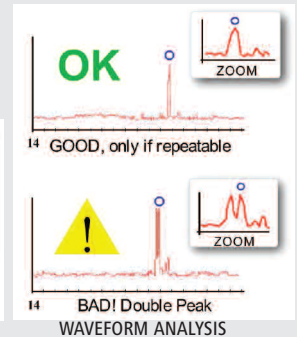
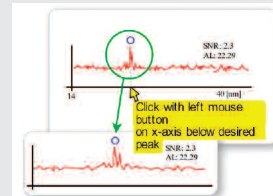
- At least 4 measurements within  $\pm 0.02\text{ mm}$
- SNR > 2.0
- Good waveform — no double peaks



22.74 mm	← Displayed waveform	
22.35 mm	← 1.6 < SNR < 2.0	
Error	← SNR < 1.6	
22.73 mm	← Manipulated data	

DISPLAY

- Four magnification levels are available.
- Click right mouse button to Zoom OUT.



## Auto-Keratometry



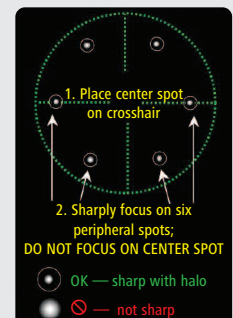
Turn Page

In this and subsequent modes, the fixation light is yellow.

- Tell patient, "Look directly at the yellow light."
- Carefully center the center spot on the green crosshair.
- Sharply focus the six peripheral spots to a very small point with a ring or halo around them.
- Tell patient, "Blink and open eyes WIDE." Press joystick button.
- If a spot is blocked by an eyelash or lid, display will show as six-spot pattern with blue blinking spot. Repeat, or if patient has drooping lids, slightly tilt head back.
- Repeat until 3 measurements are within 0.3D in each meridian; CAREFUL ALIGNMENT AND FOCUS ARE ESSENTIAL.
- Highlight and select <Del> to delete measurement (outliers, blocked spots).
- Blue highlighted value is used for IOL power calc; default is last measurement; click on desired value to select a different value to be used.
- <Ctrl> <Z> to restore previously overwritten measurement.

### Recommended Acceptance Criteria

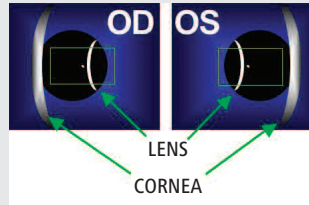
- 3 scans within 0.25D each meridian
- Select middle K value with cursor





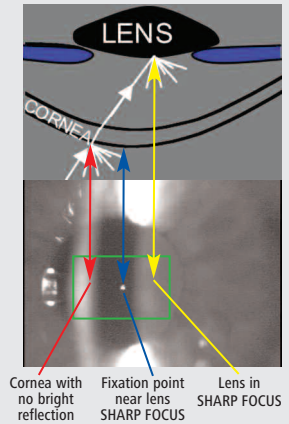
## Anterior Chamber Depth (ACD)

- Keratometry measurement must be made before ACD.
- Tell patient, "Look directly at the yellow light. A white light will flash from the side, but keep looking at yellow fixation light."
- SHARPLY FOCUS on fixation point (dot).
- ALIGN fixation point inside green box and close to image of lens. Fixation point must be in dark area. Lens image must be clear and sharp. Cornea image can be blurry, but must be free of strong reflections.
- Press joystick button.
- System will take 5 measurements with one button press, and will display all 5 and the average.
- Last measurement shown will be used for IOL power calculation.
- Highlight and select <Del> to delete measurement.
- <Ctrl> <Z> to restore previously overwritten measurement.



### Recommended Acceptance Criteria

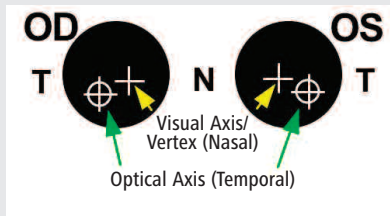
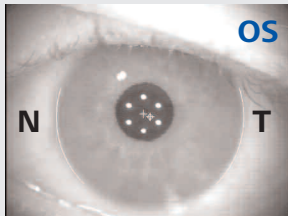
- All 5 measurements (per button press) within 0.1mm



## White to White\*



- Tell patient, "Look directly at the yellow light. Blink and open eyes WIDE."
- Center image of fixation point in the center of display.
- Focus image of fixation point to sharp point.
- Press joystick button.
- Verify that white lines lie on limbus; accept/reject image in pop-up screen.



*\*Feature requires Enhanced Refractive Software Module. Button/Icon will be grayed out if module not installed.*

### Recommended Acceptance Criteria

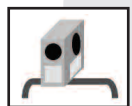
- 3 measurements within 0.2mm

## Measure Other Eye



- Move instrument to other eye; system will automatically switch to Overview Mode.
- OS/OD detection is automatic.

## Calibration Verification



- Verify calibration using test eye (in blue case) daily.
- In Measure mode, select Options → Test Eye.
- Change keratometry units to mm in options screen; change back to D after test.
- Print and keep results in binder or folder.
- Contact Carl Zeiss Meditec Tech Support if test fails.

### Acceptance Range

AL	±0.05 mm
K	±0.03 mm
ACD	±0.1 mm
WTW	±0.1 mm

## System Shutdown



- Press System Shutdown button on screen. Wait for prompt indicating that it is OK to switch off. **SWITCHING OFF MACHINE WITHOUT FIRST PRESSING SYSTEM SHUTDOWN BUTTON AND WAITING FOR PROMPT MAY RESULT IN IRRECOVERABLE LOSS OF MEASUREMENT DATA!**