

Marco M3 AUTO REFRACTOR, AUTO KERATOMETER, AND NON-CONTACT TONOMETER

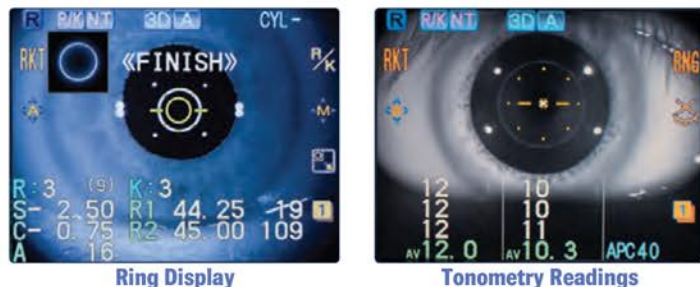
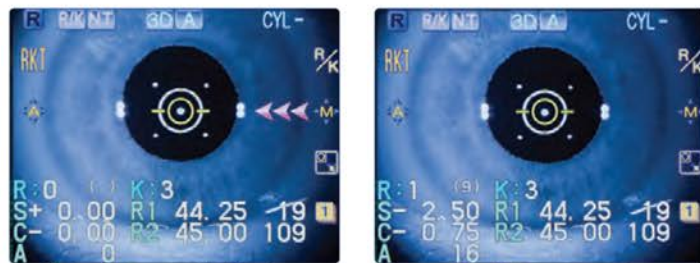
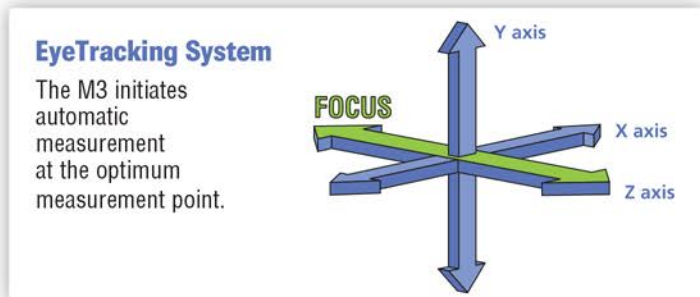


The Marco M3 non-contact tonometer, auto-refractor, and auto-keratometer combines the measurement of refractive power, corneal curvature and intraocular pressure (IOP) providing fast, highly accurate, reliable measurements with significantly reduced measurement time. Its space saving design eliminates the need for multiple instruments, offering greater efficiency, and it interfaces easily with the patient's EMR.

Small Pupil Zone Measurement The M3 is capable of measuring through a pupil as small as 2mm. The Marco M3 includes an optional Pupil Zone Imaging Method that includes a wider area (max. 4mm) to obtain measurements that are closer to the refraction through a mesopic pupil.

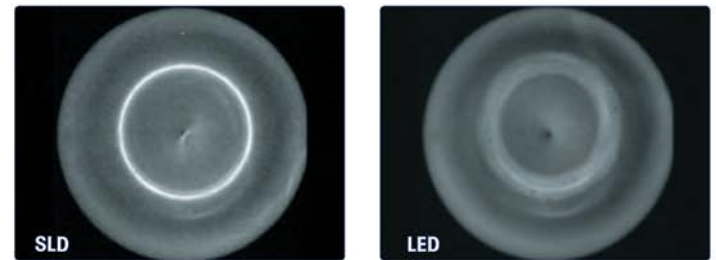


Fully Automatic EyeTracking System The M3 is completely automatic, focusing and tracking the eye horizontally and vertically.



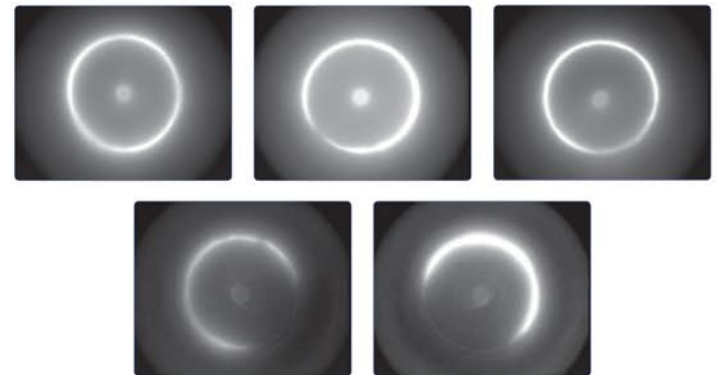
SLD vs. LED Technology Super Luminescent Diode (SLD) technology offers advantages over other measurement methods by using brighter illumination to better read through media opacities, providing a more consistent measurement. The result is more consistent and repeatable measurement even with challenging patients.

What's the difference?



Comparison of Images Through Cataract SLD vs. LED

Images From the M3 of the Human Eye with Cataracts



Examples of Myopia, Hyperopia, and Astigmatism



UNIQUE FEATURES

Automatic Fogging

The balloon picture is an infinity target. Automatic fogging minimizes accommodation and maintains fog through all measurement readings.



Gentle Air The new M3 has an advanced APC (Automatic Pressure Control) – high volume-low pressure puff-function which provides a softer puff of air for accurate IOP measurements with increased patient comfort. The M3 system automatically adjusts the strength of the air puff based on the first measurement of the patient's IOP (including glaucoma suspects).



Aseptic Method for Tonometry

The NCT provides a simple aseptic method for taking pressures. The automatic NCT measurements are operator independent. Training is quick and easy.



Adjustable Motorized Chinrest

Up/Down buttons are used to adjust the motorized chinrest to the correct height for patient measurement.



Adjustable Monitor with multi-tilt LCD

The clear 5-inch color LCD monitor can be tilted for easy operation. If the operator needs to stand to lift the patient's eyelid, the monitor can still be viewed.



Easy-Load Paper

The printer provides fast loading and automatic cutting. Simply open the door, drop in the paper, and go. No spool or paper feed needed.



SAMPLE PRINTOUT

Data Organization

The Auto-Refractor, Auto-Keratometer, and Non-Contact Tonometer data is separated on the printout.

1	Vertex Distance
2	Near Working Distance
3	Automated Refraction
4	Confidence Index
5	Spherical Equivalent
6	Eyeprint
7	Thin Lens Data
8	CL Conversion Data
9	Spherical Equivalent (CL)
10	K Readings
11	Corneal Size
12	Pupil Size
13	Pupillary Distance
14	Near PD
15	Non-Contact Tonometry

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-----0002-----
ID 12345678901234567890
NAME                               M/F
    JULY/28/2008                    4:10 PM
1  VD=12.00mm
2  WD=35cm
3  <R>   S      C      A
      - 1.75 -0.50 173  8
      - 1.25 -1.00 177  8
      - 1.25 -1.00   5  9
4  <- 1.25 -1.00 177>
5  <- 1.75 SE      >

6  [Eyeprint Diagram]

7  TL  - 1.25 -1.00 177
8  CL  - 1.25 -1.00 177
9  - 1.75 SE

10 <R1  7.98 42.25 174>
    <R2  7.66 44.00  84>
11 <AVE  7.82 43.25  >
    <CYL  -1.75 174>
12 CS 12.5      PS  5.5
                    (LAMP=ON)

13 PD 63              N 59
14

15 IOP (mmHg)
    [R] | [L]
    13  | 13
    13  | 13
    13  | 13
    ---|---
    Avg. 13.0 | 13.0
    
```

Actual printout includes data for both right and left eyes.

The NCT measurements are automatic and operator independent and training is quick and easy.



M3 SPECIFICATIONS



AUTO REFRACTOR/KERATOMETER	
Measurable Range	
Sphere	-30.00D to +25.00D (V.D. =12mm), (0.01/0.12/0.25D increments)
Cylinder	0D to ±12D (0.01/0.12/0.25D increments)
Axis	0° to 180° (1°/5° increments)
Minimum Measurable Pupil Diameter	2mm
Chart	Scenery chart (balloon target)
Radius Curvature	5.00 to 13.00mm (0.01mm increments)
Corneal Refractive Power	25.96D to 67.50D (n=1.3375), (0.01/0.12/0.25D increments)
Auto Track & Automatic Data Capture	X-Y-Z direction, Automatic Data Capture
PD Measurable Range	30.00mm to 85.00mm (indication increments: 1mm)
Corneal Size (CS)	8.1mm-14.6mm (indication increments: 0.1mm)
Pupil Size (PS)	0.8mm-12.1mm (indication increments: 0.1mm)
NON-CONTACT TONOMETER	
Measurement Range	1mm Hg to 60mm Hg
Measurement Range Settings	APC40, APC60 (APC=Automatic Puff Control) 40, 60 Standard PC puff does not automatically adjust
Working Distance	11.0mm
Eye Fixation	Inner Fixation Light
Auto Track & Automatic Data Capture	X-Y-Z direction, Automatic Data Capture
GENERAL INFORMATION	
Monitor	Multi-position tilt 5.7 inch color LCD
Printer	Thermal line printer with automatic paper cutter
Power Supply	AC 100-240 V±10%
Power Consumption	100VA
Dimensions & Weight	10.23"(W) x 18.93"(D) x 19.9"(H) / 50.7 lbs.
Standard Accessories	Spare printer paper, Chinrest paper, Power cord, Dust cover, Model eye



Marco automated technologies share data and integrate to EMR systems with Marco Connect software

